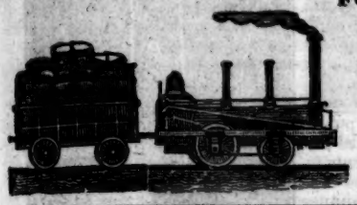
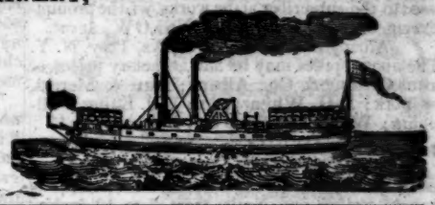
Engineer's Office

AMERICAN RAILROAD JOURNAL,

AND GENERAL ADVERTISER

FOR RAILROADS, CANALS, STEAMBOATS, MACHINERY, AND MINES.





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THE AMERICAN RAILROAD JOURNAL is the only periodical having a general circulation throughout the Union, in which all matters connected with public works can be brought to the notice of all persons in any way interested in these undertakings. Hence it offers peculiar advantages for advertising times of departure, rates of fare and freight, improvements in machinery, materials, as iron, timber, stone, cement, etc. It is also the best medium for advertising contracts, and placing the merits of new undertakings fairly before the public.

RATES OF ADVERTISING.

One page per annum	$125 00
One column "	50 00
One square "	15 00
One page per month	20 00
One column "	8 00
One square "	2 50
One page, single insertion	8 00
One columnn " "	3 00
One square " "	1 00
Professional notices per annum	5 00

NORWICH AND WORCESTER RAILRoad. On and after May 22, 1845, Trains will leave as follows, viz:—

Accommodation Trains, daily, except Sunday. Leave Norwich, at 6 a.m., and 4½ p.m. Leave Worcester, at 10 a.m., and 4½ p.m.

☞ The morning train from Norwich, and the morning and evening trains from Worcester, connect with the Boston, Western, and Hartford and Springfield railroads.

New York Train, via Steamboat. Leaves Norwich for Worcester and Boston, every morning except Monday, upon the arrival of the boat from New York, about 2 a.m. Leaves Worcester for Norwich and New York, at 5½ p.m., daily, except Sunday.

New York Train, via Long Island Railroad.—Leaves Norwich about 3 p.m., for Worcester and Boston, daily, except Sunday. Leaves Worcester for Norwich and New York, at 7½ a.m., daily, except Sunday, and arrives in Norwich at 9½.

Freight Trains. Daily, except Sunday.

☞ Fares are less when paid for Tickets, than when paid in the cars.

32 1y EMERSON FOOTE, Sup't.

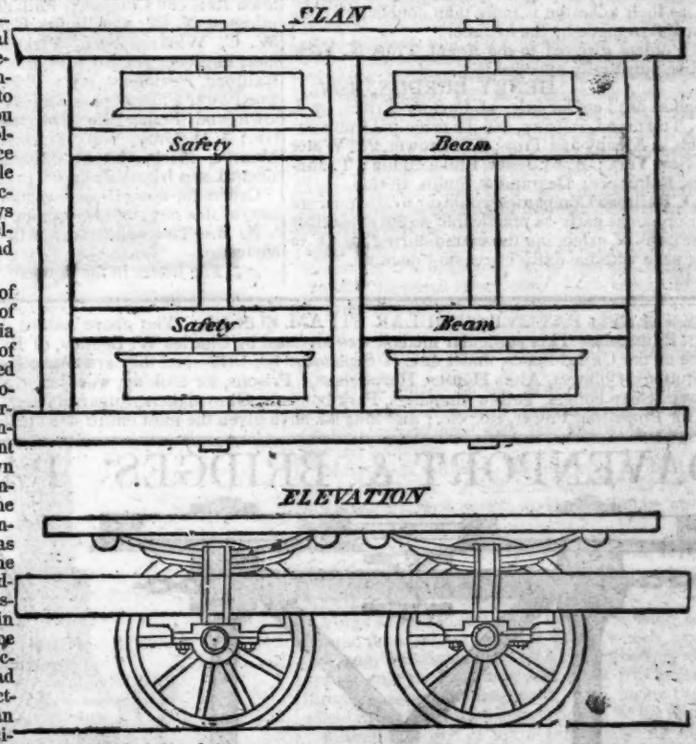
LAWRENCE'S ROSENDALE HYDRAulic Cement. This cement is warranted equal to any manufactured in this country, and has been pronounced superior to Francis' "Roman." Its value for Aqueducts, Locks, Bridges, Flooms and all Masonry exposed to dampness, is well known, as it sets immediately under water, and increases in solidity for years.

For sale in lots to suit purchasers, in tight papered barrels, by JOHN W. LAWRENCE, 142 Front street, New York.

☞ Orders for the above will be received and promptly attended to at this office. 32 1y

W. R. CASEY, CIVIL ENGINEER, NO. 23 Chambers street, New York, will make surveys estimates of cost and reports for railways, canals, roads, docks, wharves, dams and bridges of every description, with plans and specifications. He will also act as agent for the sale or purchase of machinery, and of patent rights for improvements relating to public works.

KITE'S PATENT SAFETY BEAM.



MESSRS. EDITORS.—As your Journal is devoted to the benefit of the public in general I feel desirous to communicate to you for publication the following circumstance of no inconsiderable importance, which occurred some few days since on the Philadelphia, Wilmington and Baltimore railroad.

On the passage of the evening train of cars from Philadelphia to this city, an axle of our large 8 wheeled passenger car was broken, but from the particular plan of the construction, the accident was entirely unknown to any of the passengers, or, in fact, to the conductor himself, until the train, (as was supposed from some circumstances attending the case,) had passed several miles in advance of the place where the accident occurred, whereas had the car been constructed on the common plan the same kind of accident would unavoidably have much injured it, perhaps thrown the whole train off the track, and seriously injured, if not killed many of the passengers.

Wilmington, Del., Sept. 28, 1840.

☞ The undersigned takes pleasure in attesting o the value of Mr. Joseph S. Kite's invention of the Safety Beam Axle and Hub for railroad cars. They have for some time been applied to passenger cars on this road, and experience has tested that they fully accomplish the object intended. Several instances of the fracture of axles have occurred, and in such the cars have uniformly run the whole distance with entire safety. Had not this invention been used, serious accidents must have occurred.

In short, we consider Mr. Kite's invention as completely successful in securing the safety of property and lives in railroad travelling, and should be used on all railroads in the country.

JOHN FRAZER, Agent, JAMES ELLIOTT, Sup. Motive Power,
GEORGE CRAIG, Superintendant, W. L. ASHMEAD, Agent.

☞ A model of the above improvement is to be seen at the New Jersey railroad and transportation office, No. 1 Hanover st., N. York. ja45

PATENT HAMMERED RAILROAD, SHIP and Boat Spikes. The Albany Iron and Nail Works have always on hand, of their own manufacture, a large assortment of Railroad, Ship and Boat Spikes, from 2 to 12 inches in length, and of any form of head. From the excellence of the material always used in their manufacture, and their very general use for railroads and other purposes in this country, the manufacturers have no hesitation in warranting them fully equal to the best spikes in market, both as to quality and appearance. All orders addressed to the subscriber at the works, will be promptly executed. JOHN F. WINSLOW, *Agent.*

Albany Iron and Nail Works, Troy, N. Y.

The above spikes may be had at factory prices, of Erastus Corning & Co., Albany; Hart & Merritt, New York; J. H. Whitney, do.; E. J. Etting, Philadelphia; Wm. E. Coffin & Co., Boston. ja45

PATENT RAILROAD, SHIP AND BOAT Spikes. The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years' successful operation, and now almost universal use in the United States (as well as England, where the subscriber obtained a patent) are found superior to any ever offered in market.

Railroad companies may be supplied with Spikes having countersink heads suitable to holes in iron rails, to any amount and on short notice. Almost all the railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. York, will be punctually attended to.

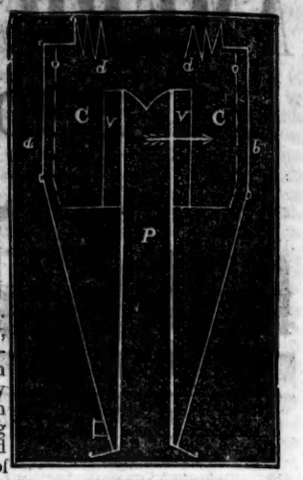
HENRY BURDEN, *Agent.*

Spikes are kept for sale, at Factory Prices, by I. & J. Townsend, Albany, and the principal Iron merchants in Albany and Troy; J. I. Brower, 222 Water St., New York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

*** Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand.

ja45

FRENCH AND BAIRD'S PATENT SPARK ARRESTER.



TO THOSE INTERESTED IN Railroads, Railroad Directors and Managers are respectfully invited to examine an improved SPARK ARRESTER, recently patented by the undersigned.

Our improved Spark Arresters have been extensively used during the last year on both passenger and freight engines, and have been brought to such a state of perfection that no annoyance from sparks or dust from the chimney of engines on which they are used is experienced.

These Arresters are constructed on an entirely different principle from any heretofore offered to the public. The form is such that a rotary motion is imparted to the heated air, smoke and sparks passing through the chimney, and by the centrifugal force thus acquired by the sparks and dust they are separated from the smoke and steam, and thrown into an outer chamber of the chimney through openings near its top, from whence they fall by their own gravity to the bottom of this chamber; the smoke and steam passing off at the top of the chimney, through a capacious and unobstructed passage, thus arresting the sparks without impairing the power of the engine by diminishing the draught or activity of the fire in the furnace.

These chimneys and arresters are simple, durable and neat in appearance. They are now in use on the following roads, to the managers and other officers of which we are at liberty to refer those who may desire to purchase or obtain further information in regard to their merits:

E. A. Stevens, President Camden and Amboy Railroad Company; Richard Peters, Superintendant Georgia Railroad, Augusta, Ga.; G. A. Nicolls, Superintendant Philadelphia, Reading and Pottsville Railroad, Reading, Pa.; W. E. Morris, President Philadelphia, Germantown and Norristown Railroad Company, Philadelphia; E. B. Dudley, President W. and R. Railroad Company, Wilmington, N. C.; Col. James Gadsden, President S. C. and C. Railroad Company, Charleston, S. C.; W. C. Walker, Agent Vicksburgh and Jackson Railroad, Vicksburgh, Miss.; R. S. Van Rensselaer, Engineer and Sup't Hartford and New Haven Railroad; W. R. M'Kee, Sup't Lexington and Ohio Railroad, Lexington, Ky.; T. L. Smith, Sup't New Jersey Railroad Trans. Co.; J. Elliott, Sup't Motive Power Philadelphia and Wilmington Railroad, Wilmington, Del.; J. O. Sterns, Sup't Elizabethtown and Somerville Railroad; R. R. Cuyler, President Central Railroad Company, Savannah, Ga.; J. D. Gray, Sup't Macon Railroad, Macon, Ga.; J. H. Cleveland, Sup't Southern Railroad, Monroe, Mich.; M. F. Chittenden, Sup't M. P. Central Railroad, Detroit, Mich.; G. B. Fisk, President Long Island Railroad, Brooklyn.

Orders for these Chimneys and Arresters, addressed to the subscribers, or to Messrs. Baldwin & Whitney, of this city, will be promptly executed.

FRENCH & BAIRD.

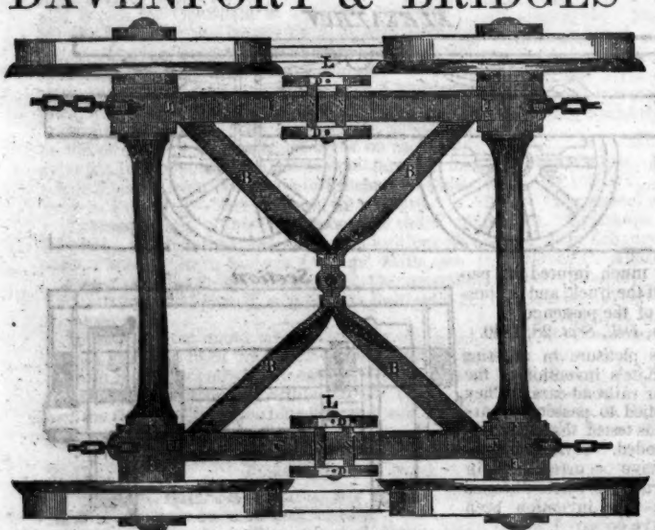
N. B.—The subscribers will dispose of single rights, or rights for one or more States, on reasonable terms.

Philadelphia, Pa., April 6, 1844.

*** The letters in the figures refer to the article given in the *Journal* of June, 1844. ja45

BENTLEY'S PATENT TUBULAR STEAM BOILER. The above named Boiler is similar in principle to the Locomotive boilers in use on out Railroads. This particular method was invented by Charles W. Bentley, of Baltimore, Md., who has obtained a patent for the same from the Paten Office of the United States, under date of September 1st, 1843—and they are now already in successful operation in several of our larger Hotels and Public Institutions, Colleges, Alms Houses, Hospitals and Prisons, for cooking, washing, etc.; for Bath houses, Hatters, Silk, Cotton and Woollen Dyers, Morocco dressers, Soap boilers, Tallow chandlers, Pork butchers, Glue makers, Sugar refiners, Farmers, Distillers, Cotton and Woollen mills, Warming Buildings, and for Propelling Power, etc., etc.; and thus far have given the most entire satisfaction, may be had of D. K. MINOR, 23 Chambers st. New York.

DAVENPORT & BRIDGES' PATENT CAR AND TRUCK.



DAVENPORT & BRIDGES' IMPROVED PATENT IRON TRUCK FOR RAILROAD CARS, is presented above, and the attention of Railroad Companies is respectfully invited to the following description of their justly-celebrated invention.

These Trucks are adapted as well for eight-wheeled passenger cars as for baggage and freight cars, giving to each a more agreeable and easy motion than any other Truck heretofore constructed or in use. They are simple in their construction, combining strength and great durability, although weighing at least twelve hundred pounds less than the common Trucks. Besides these excellences, by reason of the elasticity of the braces, B, B, B, B, as seen in the drawing, and the other peculiarities of construction, made for inside or outside bearing, the weight is *equalized* upon all the wheels, and yet any one may be raised so as to pass any inequality on the rails without lifting either of the other wheels from the track, thus rendering it almost impossible to run a car off. Being bound, and having as it were but four joinings, they are protected from injury by lateral strains, and in case of damage are easily repaired.

These excellences have been fully tested by use, for a long time, on the Eastern, the Fitchburg and Long Island railroads; and for proof of the above stated superiority of these Trucks over all others, we refer to the experience of those who have used and run them.

CAMBRIDGEPORT, April 1, 1845.

DAVENPORT & BRIDGES.

RAILROAD IRON AND LOCOMOTIVE Tyres imported to order and constantly on hand by
A. & G. RALSTON
Mar. 20tf 4 South Front St., Philadelphia.

THE NEWCASTLE MANUFACTURING Company continue to furnish at the Works, situated in the town of Newcastle, Del., Locomotive and other steam engines, Jack screws, Wrought iron work and Brass and Iron castings, of all kinds connected with Steamboats, Railroads, etc.; Mill Gearing of every description; Cast wheels (chilled) of any pattern and size, with Axles fitted, also with wrought tires, Springs, Boxes and bolts for Cars; Driving and other wheels for Locomotives.

The works being on an extensive scale, all orders will be executed with promptness and despatch. Communications addressed to Mr. William H. Dobbs, Superintendent, will meet with immediate attention.
ANDREW C. GRAY,
ja45 President of the Newcastle Manuf. Co.

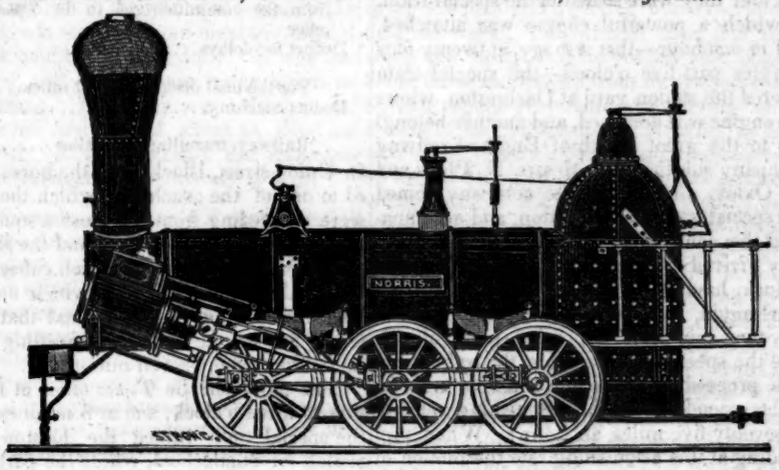
CUSHMAN'S COMPOUND IRON RAILS. etc. The Subscriber having made important improvements in the construction of rails, mode of guarding against accidents from insecure joints, etc. —respectfully offers to dispose of Company, State Rights, etc., under the privileges of *letters patent* to Railroad Companies, Iron Founders, and others interested in the works to which the same relate. Companies reconstructing their tracks now have an opportunity of *improving* their roads on terms very advantageous to the varied interests connected with their construction and operation; roads having in use flat bar rails are particularly interested, as such are permanently available by the plan.

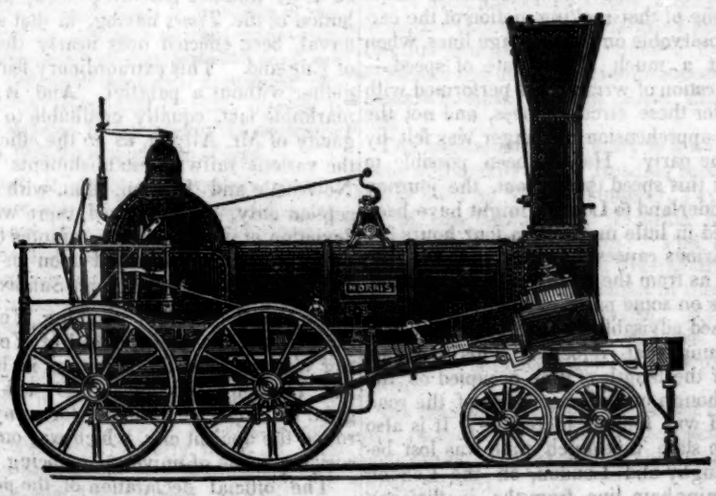
W. Mc. C. CUSHMAN, *Civil Engineer*,
Albany, N. Y.

Mr. C. also announces that Railroads, and other works pertaining to the profession, may be constructed under his advice or personal supervision. Applicaitons must be post paid.

NORRIS' LOCOMOTIVE WORKS.

BUSH HILL, PHILADELPHIA, Pennsylvania.





MANUFACTURE their Patent 6 Wheel Combined and 8 Wheel Locomotives of the following descriptions, viz:

Class	1,	15	inches	Diameter of	Cylinder,	× 20	inches	Stroke.
"	2,	14	"	"	"	× 24	"	"
"	3,	14½	"	"	"	× 20	"	"
"	4,	12½	"	"	"	× 20	"	"
"	5,	11½	"	"	"	× 20	"	"
"	6,	10½	"	"	"	× 18	"	"

With Wheels of any dimensions, with their Patent Arrangement for Variable Expansion. Castings of all kinds made to order: and they call attention to their Chilled Wheels for the Trucks of Locomotives, Tenders and Cars.

NORRIS, BROTHERS.

TO RAILROAD COMPANIES AND BUILDERS OF MARINE AND LOCOMOTIVE ENGINES AND BOILERS.

PASCAL IRON WORKS.

WELDED WROUGHT IRON TUBES

From 4 inches to ¼ in calibre and 2 to 12 feet long, capable of sustaining pressure from 400 to 2500 lbs. per square inch, with Stop Cocks, T's, L's, and other fixtures to suit, fitting together, with screw joints, suitable for STEAM, WATER, GAS, and for LOCOMOTIVE and other STEAM BOILER Flues.

Manufactured and for sale by
MORRIS, TASKER & MORRIS.
Warehouse S. E. Corner of Third & Walnut Streets,
PHILADELPHIA.

RAILROAD IRON.—THE MARYLAND AND NEW YORK IRON AND Coal Company are now prepared to make contracts for Rails of all kinds. Address the Subscriber, at Jennon's Run, Alleghany County, Maryland.
WILLIAM YOUNG,
jy45 1m President.

TO IRON MASTERS.—FOR SALE.—MILL SITES in the immediate neighborhood of *Bituminous Coal* and *Iron Ore*, of the first quality, at Ralston, Lyoming Co., Pa. This is the nearest point to tide water where such coal and ore are found together, and the communication is complete with Philadelphia and Baltimore by canals and railways. The interest on the cost of water power and lot is all that will be required for many years the coal will not cost more than $1 to $1 25 at the mill sites, without any trouble on the part of the manufacturer; rich iron ore may be laid down still more cheaply at the works; and, taken together, these sites offer remarkable advantages to practical manufacturers with small capital. For pamphlets, descriptive of the property, and further information, apply to Archibald McIntyre, Albany, to Archibald Robertson, Philadelphia, or to the undersigned, at No. 23 Chambers street, New York, where may be seen specimens of the coal and ore.
W. R. CASEY, *Civil Engineer*,

VALUABLE PROPERTY ON THE MILL Dam For Sale. A lot of land on Gravelly Point, so called, on the Mill Dam, in Roxbury, fronting on and east of Parker street, containing 68,497 square feet, with the following buildings thereon standing.

Main brick building, 120 feet long, by 46 ft wide, two stories high. A machine shop, 47x43 feet, with large engine, face, screw, and other lathes, suitable to do any kind of work.

Pattern shop, 35x32 feet, with lathes, work benches, &c.

Work shop, 86x35 feet, on the same floor with the pattern shop.

Forge shop, 118 feet long by 44 feet wide on the ground floor, with two large water wheels, each 16 feet long, 9 ft diameter, with all the gearing, shafts, drums, pulleys, &c., large and small trip hammers, furnaces, forges, rolling mill, with large balance wheel and a large blowing apparatus for the foundry.

Foundry, at end of main brick building, 60x45½ feet two stories high, with a shed part 45½x20 feet, containing a large air furnace, cupola, crane and corn oven.

Store house—a range of buildings for storage, etc., 200 feet long by 20 wide.

Locomotive shop, adjoining main building, fronting on Parker street, 54x25 feet.

Also—A lot of land on the canal, west side of Parker st., containiug 6000 feet, with the following buildings thereon standing:

Boiler house 50 feet long by 30 feet wide, two stories.

Blacksmith shop, 49 feet long by 20 feet wide.

For terms, apply to HENRY ANDREWS, 48 State st., or to CURTIS, LEAVENS & CO., 106 State st., Boston, or to A. & G. RALSTON & Co., Philadelphia. ja45

CYRUS ALGER & CO., South Boston Iron Company.

Railway Speed Unparalleled.

We announced in a previous number the extraordinary performance of the private express of the London Times, from Sunderland to London, 303 miles in 7 hours 30 minutes running time, with the news of the election of Mr. Hudson. This was considered the greatest performance on record. The gentlemen who performed this feat, left Bishop-Wearmouth at 17 minutes past 4 o'clock p.m. and arrived at the Times office in London, 307 miles, at 25 minutes past 1 a.m., 9 hours and 8 minutes; of which 4 miles or 28 minutes, was in coaches; 1 hour and 10 minutes lost at the twelve stopping places; and 7 hours and 30 minutes in accomplishing the 303 miles in the railway cars. The election news was put in type, the paper worked off and the same gentlemen left the Times office on their return at 2 o'clock and 50 minutes, the eastern station at 3 hours 5 minutes and were again back at Sunderland with the Times containing the result of the election at 10 hours 57 minutes a.m.; having performed the distance, 614 miles in 18 hours and 40 minutes, including 8 miles by coaches, twenty-four stoppages and 1 hour and 25 minutes at the Times office in London; or at the rate of 41 miles per hour, for 15 hours running time.

The distance to London was performed within 5 minutes of the time fixed and would have been done 10 minutes *within* the time, but for delays on the London and Birmingham road, in consequence of the absence of the superintendant and use of one of the old fashioned engines. This may be considered quite rapid enough for all practical purposes and business operations, yet we shall soon be able, both in Europe and this country to communicate intelligence at several hundred times this speed—by the telegraph.

The following account from the Railway Express will give a better idea of this wonderful performance than anything we can say.

The result of the polling for the Sunderland election, which took place on Thursday last, was published in the *Times* exclusively on Friday morning, having been conveyed to that office by a special messenger, who travelled the entire distance, upwards of 303 miles, in about eight hours. The express returned to Sunderland with a large number of the *Times* containing the intelligence, and arrived there shortly after ten o'clock in the morning, while the proceedings connected with the official declaration of the poll were in progress.

The entire credit of organizing these gigantic railway operations is due to Mr. Jas. Allport, manager of the Newcastle and Darlington Junction railway, whose intentions were ably seconded by the various gentlemen attached to the railway establishments whose services were brought into requisition. The special train reached Sunderland before the termination of the proceedings connected with the official declaration of the poll, and while the voice of the returning officer announcing the result was yet resounding from the hustings, to the manifest astonishment of his worship and the gentlemen by whom he was surrounded, a copy of the *Times*, published that same morning in London, upwards of 300 miles from the scene of action, was placed in his hands, and other copies were distributed among the vast assemblage, whose feelings, thus excited to the highest pitch, burst forth in one universal shout of applause.

A circumstance in all respects so extraordinary requires that this general account should be completed by minute details of the achievement. In the vicinity of Mr. Hudson's committee-room, in Bishop-Wearmouth, a carriage was in readiness to convey the travellers to the railway station of the Branding Junction, now incorporated with the Newcastle and Darlington railway, in Monk-Wearmouth; and exactly at seventeen minutes past four o'clock Mr. Allport, accompanied by Mr. Lockie, of the *Newcastle Journal*, who reported the proceedings for the *Times*, took his seat in the vehicle, and drove off amidst the cheers of those assembled to witness the departure. At twenty-four minutes past four they were seated in the special train, to which a powerful engine was attatched, and in one hour—that is to say, at twenty-four minutes past five o'clock—the special train entered the station yard at Darlington, where the engine was detached, and another belonging to the great North of England railway company substituted. Messrs. N. Plues and E. Oxley, directors of the company joined the special train at Darlington, and accompanied the couriers to York, at which city they arrived at twenty-two minutes past six o'clock, having performed the journey from Darlington, a distance of forty-five miles, in fifty-two minutes. On some parts of this line the speed was incredible, the train at one time proceeding at the rate of a mile in forty-eight seconds, or at the astonishing velocity of seventy-five miles an hour! When proceeding at this astonishing rate the motion of the train was scarcely perceptible, there being none of that rocking motion of the carriages observable on broad guage lines, when going at a much slower rate of speed.—The operation of writing was performed with ease under these circumstances, and not the slightest apprehension of danger was felt by any of the party. Had it been possible to maintain this speed throughout, the journey from Sunderland to London might have been performed in little more than four hours!—From various causes, however, that was impossible, as from the nature of the curves and gradients on some parts of the way, it was not deemed advisable to proceed at any rate approaching that velocity. This will account for the length of time occupied on the whole, though on different parts of the road the speed was almout incredible. It is also proper to state that much time was lost between Rugby and London, on the London and Birmingham line, from the inefficiency of the engine power, and the faulty arrangements made in the absence of the chief superintendent of the line. The train would have arrived in London much earlier than it did had the London and Birmingham railway been able to advance it at the same rate as on the lines from Sunderland to Rugby, all of which are under, and do infinite credit to the management of Mr. Hudson. Additional particulars will be found in the following time table:

	H.	M.	Delay.	M.
Bishopwearmouth	4	17		
Monkwearmouth railway station	4	24		
Durham	4	52	For water	2
Darlington	5	24	Fresh engine	6
York	6	22	Fresh engine & change of carriage	2
Normanton	6	29	Change of engine	3
Masborough	7	34	Ditto	4
Chesterfield	8	2		2
Derby	8	37		3
Leicester	9	39	Delay and detention caused by the quarter to eight o'clock train in advance	15
Rugby	10	6	Change of engine	13
Wolverton	11	4		6
Primrose-hill	12	50		11
Euston-square	1	2		3
The *Times* office	1	25		
Total time	9	8	Total delay	70

	H.	M.
Thus from the time occupied in travelling from the committe-room to the *Times* office	9	8
Deduct for delays	1	10
For the total distance of 307 miles	7	58
Deduct coaching	0	28
Railway travelling 303 miles	7	30

In Union-street, Blackfriars, the horse attached to one of the coaches in which the party were proceeding from the Euston-square station to the *Times* office, fell, and the shafts of the vehicle were broken, which caused a delay of about three minutes, which ought to be deducted from the above, and that would leave for actual railway travelling seven hours and twenty-seven minutes.

The party left the *Times* office at 10 minutes to three o'clock, and at 5 minutes past 3 the special train quitted the Euston-square station for Sunderland, where the party arived at 57 minutes past 10 o'clock, the distribution of the *Times* having, in that short interval, been effected over nearly the whole of England. This extraordinary feat is altogether without a parallel. And it is a remarkable fact, equally creditable to the sagacity of Mr. Allport, as to the efficiency of the various railway establishments between Newcastle and London, that, with one exception only, above noticed, there was not a deviation of more than five minutes from the times previously calculated upon for the performance of the journey from Sunderland.

On the special train reaching York from Sunderland, the monster bell of York Minster was rung for the first time in honor of Mr. Hudson's election. The tone of the great St. Peter was heard for many miles round the ancient city, which was on this occasion a scene of universal rejoicing.

The official declaration of the poll took place on Friday morning at the hustings in front of the Exchange, in High-street. A large crowd assembled to witness the proceedings, but the greatest order prevailed. The return was declared as follows:

Mr. Hudson	626
Col. Thompson	498
Majority for Mr. Hudson	128

In returning thanks Mr. Hudson said, "Here is the *Times* newspaper of this morning just put into my hands. Here, gentle-

men, you see the march of intellect. A special engine was despatched yesterday afternoon at half-past four o'clock, with the result of the polling, and it has returned this morning, bringing with it the account of the proceedings. See the march of opinion. This triumph of steam is very much owing to the talent which belongs to this neighborhood, and of which you ought to be proud." The Mayor also referred to the astonishing achievement which had been effected by Mr. Allport. He said, that gentlemen and his own son, accompanied by a special messenger for the *Times*, went away yesterday from Sunderland, shortly after the termination of the poll, and they had returned with this sheet (holding up in his hand a copy of the *Times* containing the result of the poll,) and several others, which have been distributed in this town, as well as in the principal towns in the kingdom. It was a feat, he must say, he did not think could have been done. It was unparalleled, and might never occur again in their lifetime. Indeed, it was a thing to be remembered and talked about as long as they lived. It demonstrated the immense public advantages of the railway system.

New Furnace at Reading Pennsylvania.—We take the following notice of the new furnace of Dr. Eckert, from the Reading Journal of 30th August. It should have been inserted at an earlier day, that our readers may be apprised of the progress made in the manufacture of iron in this country.—It is becoming daily more and more important that the manufacture should be extended as widely as possible, as it is evident to us, from the present indications in Europe, that we must rely mainly upon ourselves for a supply of iron to construct our railroads during the next ten years. The demand in England will be nearly equal to its ability to supply—therefore we must make renewed efforts to supply ourselves—which we may, and shall do, if our capitalists will make themselves acquainted with the subject. A wider field or richer harvest is scarcely to be found in this country for enterprize and capital, than the manufacture of iron.

We were in error last week in stating that the new furnace had commenced operations. It was 'blown in' on Tuesday last.—During the day and evening, and every day and evening since, it was visited by hundreds of our citizens, all of whom seem to take a peculiar pride and pleasure in this establishment. At first we understand, some difficulty was had, occasioned by the inexperience of the hands in starting a new enterprize of this kind. The proportions of coal, ore and limestone were not properly filled in, and fears were entertained on Wednesday that the furnace would be clogged or "chilled," as it is technically termed. The timely arrival of Mr. Perry—a gentleman of much experience in the anthracite iron business, engaged by the proprietors to start the concern—however, soon set matters to rights. The furnace was vigorously worked, and by Thursday evening the clogs cinder and "nigger heads" were removed, and the chilling process overcome. At this writing, (Friday morning) the furnace may be said to be *successfully blown* in—although as is usual upon starting a new concern, no iron of any consequence or of a good quality can be made for some days.

We have no doubt this will prove one of the most succesfull iron establishments in the country. Its location is admirable and its advantages pre-eminent. No pains or expense has been spared by the Messrs. Eckert, in its construction, and its arrangements and fixtures are complete throughout.

The successful blowing in of this new furnace must be a proud era in the life of Dr. George N. Eckert, one of the proprietors, under whose superintendence it was built.—We have seen him week after week, and month after month laboring assiduously in urging forward the work. In rain and in storm he was there, and when the hot broiling sun poured its fiercest rays upon the burning earth, he was on the ground, encouraging the men and directing and superintending the work. No wonder then that now when the thing is done—when the bright flame flares merrily up from its prison house, lighting up the Neversink and serving as a beacon of the prosperity of Reading to her own citizens and all the country adjacent—he should feel a peculiar pride and pleasure at the result of his labors. No wonder that our citizens should feel interested and rejoice at his success, and that crowds should nightly assemble to look npon this noble achievement of human power, science and industry. The resources of our borough are now being developed. The iron ore from our hills, is now turned to acccount. We see it trundled into the fire-pit and turned into iron—iron more precious than gold for all the practical purposes of life—before our eyes. We see numbers of our citizens provided with a new field of usefullness and a new means of procuring for themselves and families an honorable independence. No wonder then that we should feel an interest in the success of the agents who have brought about this great good.

The engine and machinery is a noble evidence of the skill of our Reading mechanics. It was built by Messrs. Dotterer, Taylor and Co., of this borough and performs its work with clock-work precision. The attempt made some weeks since at Harrisburg to injure the well earned reputation of these gentlemen, is here strikingly belied. All works smoothly and beautifully, and we believe thus far no fault has been found with a single part.

We shall have more to say about this furnace, its further operation and capacity, in a week or two, or as soon as it shall have been properly tested.

A New Propeller.—A spiral cut wheel has been invented by Mr. S. J. Gold, an engineer of this city, which, if the results obtained with a working model are a fair basis for calculation, seems destined to supersede every other description of propeller used in steam navigation; indeed it would appear that any speed compatible with the resistance of the air might be attained by the application of sufficient power to this whcel. Mr. Gold's propeller has, it is claimed, a vast advantage over the paddle, inasmuch as it runs through the water without lifting it, and is not retarded by that resistance of the fluid to the blow of the bucket which, becoming greater with the increase of speed, is a serious obstacle to the attainment of extraordinary velocity with the paddle. Over the Archimedean screw and its modifications Mr. Gold claims for his cut wheel this advantage; that whereas half the power expended upon the former is necessary to overcome the resistance of the centre, his wheel has no centre, so far as resistance is concerned, and moves under the direct influence of the whole power applied; or in other words the entire power applied, or very nearly so, is expressed in the velocity obtained.

Mr. Gold's propellers are affixed to the boat, one on each side, in the same situation as the paddles, their axes like those of the paddles, being parallel with the horizon, but unlike them being also parallel with the sides of the boat. The inner angle of the spiral curve is about 45 degrees, and the divisions between the threads of the screw, if we may so call them, answer to the number of buckets in the ordinary paddle wheel.

The invention has been submitted to several eminent scientific men, and Mr. Gold informs us that not one of them has been able to show him why he cannot obtain the same results with full-sized machinery as with his model. He courts investigation, and will be pleased to afford engineers and other scientific men every facility for examining the wheel, and testing its capacity. It is either an invention of incalculable value or it is worth nothing; and he is anxious that every feasible objection, if any such can be urged against it, should be brought forward. The motive power applied by Mr. Gold in his model is simply that of weights and pulleys. Steam has not yet been used.

We publish below the result of the last experiment:

Experiment of test between two wheels—One, the common paddle wheel; the other a spiral cut wheel—the boat used in both being the same—the wheels of equal diameter, and the square of the buckets equal—the dips also equal. The extreme length of the boat is 20 feet. The form—two buoys or cylinders 12½ inches diameter. Draft of water 6½ inches.

In a test by a certain power over equal centres the result was as follows—each power being applied to the bucket of each wheel at the dip:

Paddle Wheel.

1st. Power,	2 lbs.	55 seconds.	200 feet run.		
2d.	4 "	47 "	"	"	
3d.	6 "	43 "	"	"	

Cut Wheel—(Power applied as above.)

1st.	2 lbs.	45 seconds.	200 feet run.		
2d.	4 "	35 "	"	"	
3d.	6 "	28 "	"	"	

Ratio of speed gained by the Cut Wheel, over the common Paddle. As follows:

With 2 lbs.	22½	per cent.
" 4 "	34½	"
" 6 "	53½	"
" 10 "	near 100	"

"Another Railroad Route," is in type, but unavoidably omitted, in consequence of the amount of other matter previously in hand.

ENGLISH RAILROAD SHARE-LIST.

NAME OF RAILWAY.	Miles opened.	Total sums, in pounds, authorized to be raised by shares.	Total sums, in pounds, authorized to be raised by loan or mortgage.	Total sums, in pounds, expended at dates of latest balance sheets.	Cost of working in pounds for six months as stated in latest balance sheets.	Total earnings, in pounds, for six months as stated in latest balance sheets.	Dividend at last meeting. Per share. £ s. d.	Per cent. per annum. £ s. d.	Paid on share.	Value of share.
Arboath and Forfar	15	102,000	35,000	138,870	.....	.....	0 12 6	2 10 0	25	20
Birmingham and Gloucester	55	1,187,500	407,336	1,500,806	39,261	53,203	1 5 0	2 10 0	100	100
Brandling Junction	23	161,700	365,470	481,452	.....	.....	.....	4 10 0	50	54
Bristol and Gloucester	37	400,000	211,000	657,825	.....	.....	.....	nihil.	30	59
Chester and Birkenhead	14½	750,000	143,170	518,989	5,856	13,148	0 10 0	2 0 0	50	60
Dublin and Drogheda	31	450,000	150,000	582,254	.....	.....	.....	nihil.	60	115
Dublin and Kingston	6	200,000	152,200	349,736	.....	.....	9 0 0	9 0 0	100	251
Dundee and Arbroath	16½	100,000	49,445	153,416	2,989	6,993	1 5 0	5 0 0	25	36
Durham and Sunderland	18½	169,350	124,055	270,392	9,889	17,702	.....	nihil.	50	25
East County and North and East	86½	4,443,200	1,341,155	3,931,905	47,385	118,726	1 6 6	.....	45	57
Edinburg and Glasgow	46	1,125,000	375,000	1,649,523	29,429	55,866	1 5 0	5 0 0	50	78
Glasgow, Paisley and Ayr	51	937,500	.....	1,071,258	12,446	36,736	1 5 0	5 0 0	50	72
Glasgow, Paisley and Greenock	22½	650,000	216,666	797.643	11,830	23,447	0 5 0	2 0 0	25	21
Grand Junction	104	2,478,712	.....	2,503,671	84,309	195,080	5 0 0	10 0 0	100	239
Great North of England	45	969,000	581,017	1,307,487	12,201	36,189	3 0 0	6 0 0	100	230
Great Western	221¼	4,650,000	3,679,343	7,445,689	143,279	440,046	4 0 0	8 0 0	80	215
Hartlepool	15½	438,000	155,540	719,205	.....	.....	.....	8 0 0	100	...
Leicester and Swannington	16½	140,000	.....	140,000	2,207	6,317	1 5 0	5 0 0	50	...
Liverpool and Manchester	32	1,209,000	497,750	1,785,000	64,885	141,252	5 0 0	10 0 0	100	214
Llanelly	27	200,000	44,000	221,624	.....	.....	1 0 0	2 0 0	87	...
London and Birmingham	202½	6,874,976	1,928,845	6,614,005	96,413	456,997	5 0 0	10 0 0	100	245
London and Blackwall	3¼	804,000	266,000	1,768,851	15,978	23,870	0 3 0	1 10 0	16	10
London and Brighton	56	1,935,000	705,000	2,637,753	30,490	130,156	1 10 0	6 0 0	50	77
London and Croyden	8½	550,000	229,000	761,885	7,583	10,545	0 8 0	4 0 0	14	23
London and Greenwich	3¼	759,383	233,300	1,040,930	15,193	28,933	.....	nihil.	13	11
London and South Western	92½	2,222,100	630,100	2,604,405	89,439	190,631	2 0 0	10 0 0	41	82
Manchester and Birmingham	31	2,100,000	690,586	1,923,699	15,397	58,162	1 0 0	5 0 0	40	62
Manchester and Bolton	10	778,100	197,730	773,743	8,585	21,140	2 2 0	4 10 0	93	169
Manchester and Leeds and Hull	87	2,937,500	1,943,932	3,921,593	46,653	156,761	.....	8l. & 10l.	60	170
Midland railway	179½	5,158,900	1,719,630	6,279,838	75,227	276,129	3 0 0	6 0 0	100	192
Newcastle and Carlisle	61	878,240	188,563	1,135,069	26,499	46,745	5 0 0	5 0 0	100	113
Newcastle and Darlington	23	500,000	.....	405,728	.....	.....	1 0 0	8 0 0	21	56
Newcastle and North Shields	7	150,000	153,876	309,629	8,943	18,466	.....	6 9 0	50	69
North Union	39	739,201	308,306	1,028,593	24,788	37,794	2 10 0	6 5 0	100	176
Paris and Orleans	82	1,600,000	400,000	1,978,415	.....	.....	0 16 0	8 0 0	20	45
Paris and Rouen	84	1,440,000	.....	.....	31,247	91,171	.....	8 0 0	20	40
Preston and Wyre	19	830,000	179,852	355,161	4,191	7,066	.....	4 0 0	50	32
Sheffield and Manchester	19	1,150,000	311.759	951,455	11,895	14,876	.....	nihil.	87	135
South Eastern	88	2,996,000	1,530,277	3,464,172	69,288	139,042	.....	3 1 4	33	48
Taff Vale	30	465,000	195,000	595,089	9,115	22,692	1 17 7	3 15 0	100	104
Ulster	25	519,150	20,000	348,626	5,401	13,856	0 15 0	5 1 8	32	52
Yarmouth and Norwich	20½	187,500	62,500	230,036	5,186	10,008	1 0 0	5 0 0	20	29
York and N. Mid. and Leeds and Selby	28	1,062,500	167,500	1,107,146	31,349	75,474	2 10 0	10 0 0	50	115

NEW AND PROPOSED RAILWAYS.	Share Capital.
Aberdeen	1,600,000
Barnsley Junction	200,000
Belfast and Ballymena	385,000
Blackburn and Accrington	400,000
Birk. and Ches. Junction	1,000,000
Bolt., Wigan and Liverpool	800,000
Caledonian	1,800,000
Cambridge and Lincoln	1,250,000
Chatham and Portsmouth	5,000,000
Chester and Wrexham	120,000
Churnet valley	1,800,000
Direct Northern to York	4,000,000
Dublin and Belfast	950,000
Dundee and Perth	250,000
Edinburg and Northern	800,000
Ely and Bedford	270,000
Glosgow, Dum. & Carlisle	1,300,000
Gt. South and West Ext.	1,200,000
Gt. Grimsby and Sheffield	600,000
Harwich and E. coun. Jun.	160,000
Huddersfield & M. rl. & cl.	600,000
Kendal and Windermere	125,000
Leeds and Dewsbury	400,000
Leeds and Thirsk	800,000
Liv. Ormskirk and Preston	600,000
London and Portsmouth	1,750,000
London and York	5,000,000
Londonderry & Enniskillen	500,000
Lynn and Ely	200,000
Manchester, Bury and Ross	300,000
Manchester and Buxton	250,000
Mullingar and Athlone	.....
Newcastle and Berwick	700,000
Richmond & W. End Junc.	.....
Scottish Central	700,000
Sheffield and Lincolnshire	650,000
Shrewsbury and Gd. Junc.	400,000
Shrew. Wolv. Dudly & B.	900,000
Trent Valley	900,000
West London Extension	64,000
West Yorkshire	1,000,000
Whitehaven and Maryport	100,000
FRENCH RAILWAYS.	
Boulogne and Amiens	1,500,000
Central of France	1,280,000
Lyons and Avignon	2,400,000
Orleans, Tours & Bordeaux	2,000,000
Paris and Lyons	2,500,000
Paris and Orleans	1,600,000
Paris and Rouen	1,400,000

Steam and Miscellaneous.

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Anglo Mexican Mint	10,000	10	10	.....	15½	15½
Anti Dry Rot	10,000	.....	18½	.....	2	.....
Australian Trust Company	5,700	100	35	.....	34½	.....
General Steam Navigation	20,000	15	14	10	27½	27
Gt Western Steam Pa	.....	.....	100	.....	25	.....
Metropolitan Wood Pav	15,000	10	6	5	6½	.....
Patent Elastic Pav	10,000	1	1	5	1¼	.....
Peninsular and Oriental	11,493	50	50	7	64¼	65
Ditto	3,200	50	40	7	.....	.....
Polytechnic Institution	.....	.....	.....	6	.....	.....
Reversionary Int. Soc.	5,387	100	100	4½	104	104
R. Mail Steam Packet	15,000	100	60	.....	36½	37
South Western Steam	4,000	25	5	.....	.....	.....
Ship Owners' Towing	3,000	10	7½	10	15	.....
Thames Tunnel	4,000	50	50	.....	.....	.....
University College	1,500	100	100	.....	.....	.....

Canals.

Ashby de la Zouch	1,432	113	[av.	4	70	70
Barnsley	720	100	100	14	180	180
Birmingham, 1-16 share	3,000	118½	79	10	150	160
Do. and LiverpoolJunction	4,000	160	100	.....	13½	13¼
Coventry	500	100	100	20	365	365
Cromford	460	do.	do.	24	250	250
Derby	600	do.	do.	9	105	105
Erewash	231	do.	do.	32	440	440
Forth and Clyde	1,297	400½	40½	4	440	440
Grand Junction	11,600	100	100	7	162	161½
Grand Surrey	1,500	do.	do.	.....	20	.....
Gloucester and Rerkley	5,000	do.	do.	.....	8	8
Grantham	749	150	150	8	185	185
Lancaster	11,699	47½	47½	3	40	40
Leeds and Liverpool	2,897	100	100	34	640	640
Leicester	545		140	9	139	139

NAME OF COMPANY.	Num. of shares.	Am't. of share.	Amount paid.	Div. p.c. per ann.	Last price.	Present price.
Loughborough	70	142½	142½	70	1140	
Monmouthseire	2,409	100	100	10	160	160
Melton Mowbray	250	100	100	10	117	117
Mersey and Irwell	500	100	1 0	10		
Macclesfield	3,000	100	100	2½	15	15
Neath	247	100	100	17	365	365
Oxford	1,786	100	100	30	505	
Regents or Loncon	21,418	33½	33½	2½	25	25
Shropshire	500	125	125	6	120	120
Somerset coal	800	150	150	7½	123	123
Stafford and Worcester	700	140	140	25	480	480
Shrewsbury	500	125	125	12	230	230
Stourbridge	300	145	145	14	360	360
Stroudwater	200	150	150	19		
Swansea	533	100	100	15	240	240
Severn & Why & Rail Av.	3,762	26½	26½	5½	30	30
Trent and Mersey	2,600	50	50	65	495	
Thames and Medway	8,149	19½	19½	.....	10	10
Warwick and Birmingham	3,000	100	100	10½	167	
Warwick and Napton	980	100	100	8½	122	

Water Works.

Birmingham	4,800	25	25	3½	28	28
East London	4,433	100	100	8	223	225
Grand Junction	5,500	av.	41 2-3	7½	88	90
New River L. B. Ann	1,500			2½		
Manchester and Salford	6,486	av.	30	8½	57	57
Vauxhall, lt. S. London	1,000		100	5	55	55
West Middlesex	8,294	av.	63½	6½	126	127

Docks.

Commercial Dock	1,065	100	100	3	80	
ast and West India		sto.		5½	137	
ondon	3,238,310	sto.		4½	114½	115
Katharine	1,352,752	sto.		5	116	171
uthampton	7,000	50	50			

AMERICAN STATE WORKS AND CANALS, ETC.

		STATE WORKS.	Length in miles.	Cost.	1843. Income.	1843. Expend.	1844. Income.	1844. Expen
N. Y.	1	Black river canal	35	1,524,967	.....	.....	.....	.....
"	2	Cayuga and Seneca	21	237,000	16,557	10,953	24,618	14,443
"	3	Champlain canal	64	1,251,604	102,308	.....	116,739	.....
"	4	Chemung	23	684,600	8,140	14,486	14,385	12,740
"	5	Chenango	97	2,420,000	16,195	15,967	22,179	15,960
"	6	Crooked lake	8	156,777	461	3,674	1,498	3,951
"	7	Erie—enlargement of	363	12,648,852	1,880,316	.....	.....	.....
"	8	Genessee valley	120	3,739,000	.....	.....	.....	.....
"	9	52 miles opened, cost $1,500,000	.....	.....	12,292	13,819	19,641	15,557
"	10	Oneida lake	6	50,000	225	2,239	621	1,636
"	11	Oswego	38	565,437	29,147	22,742	56,165	28,599
Pa.	12	Beaver division canal	25	.....	.....	.....	7,381	5,386
"	13	Delaware canal	60	.....	.....	.....	109,278	22,870
"	14	French creek	45	.....	.....	.....	.....	.....
"	15	Seneca river towing path	.....	69,276	.....	.....	381	.....
"	16	Columbia railroad	82½	4,204,969	.....	.....	443,336	205,067
"	17	Eastern division	36	.....	.....	.....	179,781	138,915
"	18	Juniata canal	93					
"	19	Portage railroad	36½	1,828,461	.....	.....	351,102	248,943
"	20	Western division canal	105					
"	21	North branch Susquehannah canal	73					
"	22	West " " "	72	.....	.....	.....	101,949	57,633
Ohio	23	Hocking canal	56	975,130	4,757	.....	5,286	4,139
"	24	Miami canal	85	1,660,742	68,640	38,826	77,844	22,341
"	25	Miami extension	105	2,856,636	8,291	.....	12,723	14,741
"	26	Miami northern division	35	322,000	.....	.....	unfin'd.	.....
"	27	Muskingum	91	1,627,318	23,167	.....	29,385	15,027
"	28	Ohio	334	4,600,000	322,754	123,398	343,711	113,210
"	29	Wabash	91	3,028,340	35,922	6,400	48,589	12,817
"	30	Walhonding	25	607,269	838	39,005	1,977	1,238
"	31	Western road	31	255,015	7,254	1,782	8,747	2,929
Ind.	32	Sundry works	.....	11,000,000	.....	.....	.....	.....
"	33	Maume canal	.....	.....	.....	.....	.....	.....
Ill.	34	Sundry works	.....	10,000,000	.....	.....	.....	.....
Mich	35	Central railroad	110	1,842,308	149,987	75,960	211,170	89,420
"	36	Southern railroad	68	936,295	24,064	7,907	60,341	70,000

The State Canals are all 4 feet deep, and the locks are 13 to 17 feet wide, and 80 to 90 feet in length.

The six millions paid to the canal fund from auction and salt duties are not included in the estimate of cost. The Genesee valley and the Black river canals require large sums for their completion, the interest of which *additional* sum is much greater than the estimated gross income of these canals when finished. The sums required to complete these two canals are $2,000,000 and $600,000, making their total cost when finished $5,553,000 and $2,409,000; an expenditure incurred on estimated incomes (admitted to be liberal,) of $39,000 and $14,000 respectively.

The total receipts from the works of Pennsylvania for 1843 were $1,019,401; for 1844 $1,164,326, and the cost about 30 millions.

The receipts for 1844 were as follows:

Canal tolls,	578,404
Railroad tolls,	252,855
Motive power,	319,590
Trucks,	13,477

of which $585,922 is from 118 miles of railroad, and $578,404 from 550 miles of canal.

The canals of Ohio are supported by a property tax of 5½ mills on the dollar. There are 853 miles of canal in the State, which yielded in 1843 $471,623, and in 1844 $515,393, the cost, 1st Jan. '43 being $15,577,233. The increase of '44 over '43 is only $43,770, though the year '44 has exhibited a greater increase throughout the country than ever before known.

These 21 millions on sundry works yield no nicome whatever.

The central railroad yields above 6 per cent., and is the only State work—the Erie canal excepted—which is able to stand alone.

	CANALS.	Length in miles.	Cost.	1843. Income. Gross.	1843. Income. Nett.	Div. per cent.	1844. Income. Gross.	1844. Income. Nett.	Div. per cent.	Value of stock.
	Blackstone	.....	.....	.....	.....	....	.....	.....	....	.....
	Bald Eagle Navigation	25	400,000	.....	.....	....	.....	.....	....	.....
	Beaver and Sandy, (part)	.....	1,000,000	.....	.....	....	.....	.....	....	.....
	Charleston, (S. C.)	.....	.....	.....	.....	....	.....	.....	....	.....
	Chesapeake and Ohio	184	12,370,470	47,637	.....	....	.....	.....	....	.....
	Conestota	12	300,000	.....	.....	....	.....	.....	....	.....
	Delaware and Chesapeake	13	.....	.....	.....	....	.....	.....	....	26
	Schuylkill	108	3,500,000	279,795	102,221	....	190,693	120,624	....	31
	Farmington	.....	.....	.....	.....	....	.....	.....	....	.....
	James river and Kenhawa	.....	.....	.....	.....	....	.....	.....	....	.....
	Middlesex	.....	.....	.....	.....	....	.....	.....	....	.....
	Port Deposit	10	200,000	.....	.....	....	.....	.....	....	.....
	Delaware and Raritan	43	2,900,000	99,623	53,327	....	131,491	84,455	....	.....
	Southwark	.....	300,000	.....	.....	....	.....	.....	....	.....
	Tide Water	45	2,900,000	.....	.....	....	.....	.....	....	.....
	Union	80	2,000,000	.....	.....	....	.....	.....	....	.....
	Morris	101	1,000,000	.....	.....	....	.....	.....	....	26½
	Dismal Swamp	.....	.....	.....	.....	....	.....	.....	....	.....

REMARKS.

We may, perhaps, at some future time be enabled to give the particulars of all these canals.

The Chesapeake and Ohio canal is not yet completed to the coal mines, hence its trifling income.

The enlargement of the Schuylkill canal has been commenced.

The Morris canal was lately sold for one million, about one-fourth of of its cost.

CANADIAN CANALS.	Length in miles.	No. of locks.	Lockage in feet.	Size of locks. Length of chamber.	Size of locks. Width.	Depth on mitre sill.	Width of canal. Bottom.	Width of canal. Surface.	Estimate.	Expended to Sept. 1843.	Income. 1843.	Income. 1844.
				feet.	feet.	feet.	feet.	feet.				
The Welland canal	.....	.....	.....	.....	.....	.....	.....	.....	3,948,572	2,485,572	64,658	
Main trunk from Port Colborne to Port Dalhousie	28	31	328	150	26 1-2	8 1-2	45	81	.....	.....		
Junction branch to Dunville	not added	1	6	150	26 1-2	8 1-2	35	71	.....	.....		
Broad creek branch to Port Maitland	below.	1 1-2	1	6	200	45	9	45	85	.....	.....	
The St. Lawrence canal	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
Galops and Port Cardinal	2	2	7	200	45	9	50	90	.....	.....		
Rapid Plat	4	2	11 1-2	200	45	9	50	90	672,498	973		
Farren's point	3-4	1	3 1-2	200	45	9	50	90	.....	.....		
Cornwall, passing the Long Sault rapids	11 1-2	7	48	200	55	9	100	150	865,372	1,665,663		
Beauharnois, do. Coteau, Cedars and Cascades road	11 1-4	9	82 1-2	200	45	9	80	120	1,190,087	275,426		
Lachine, do. Lachine rapids	8 1-2	5	44 1-2	200	45	9	80	120	old canal.	400,000	29,288	
Elargement of do.	.....	.....	.....	.....	.....	.....	.....	.....	1,001,333	64,439		
Total from lake Erie to the sea	12	57	525									
Chambly	66	9	74	120	24	6	36	60	200,000	440,000	1,409	

COAL COMPANIES.	Length in miles. R. rd.	Canals.	Cost.	1843. Income. Gross.	1843. Income. Nett.	Div. per cent.	1844. Income. Gross.	1844. Income. Nett.	Div. per cent.	Value of stock.
Delaware and Hudson	16	108	2,800,000	930,203	196,702	10	.....	.....	....	130
Lehigh	20	72	6,000,000	.....	.....	....	.....	.....	....	31

REMARKS.

AMERICAN RAILROADS.

		RAILROADS.	Length in miles.	Cost.	Loans and debts.	Number of shares.	Paid on share	1843. Income. Gross.	1843. Income. Nett.	Div. per cent.	1844. Income. Gross.	1844. Income. Nett.	Div. per cent.	Previous prices	SALES. Week ending Sept. 15. Last	Sales
Me.	1	Portland, Saco and Portsmouth	50	1,200,000				89,997	47,166	7	131,404	62,172	6	101½		100½
N. H.	2	Concord	35	750,000									12	65		
Mass.	3	Boston and Maine	56	1,485,461				178,745	68,499	6	233,101	86,401	6½	111		
"	4	Boston and Maine extension	17 1-4	455,703	unfin.											
"	5	Boston and Lowell	26	1,863,746				277,315	144,000	8	316,909	147,615	8	118		117½
"	6	Boston and Providence	41	1,886,135	none.	18,600	100	233,388	110,823	6	282,701	156,109	6	111		
"	7	Boston and Worcester	44	2,914,078				40,141	162,000	6	428,437	195,163	7½	116½		116½
"	8	Berkshire	21	250,000	not stated				17,500	7	17,737					
"	9	Charlestown branch		280,260						13	34,654	13,971	5½	80		
"	10	Eastern	54	2,388,631				279,563	140,595	6	337,238	227,920	8	107½		107½
"	11	Fitchburg	50	1,150,000	just opn'd						42,759	26,835		119		
"	12	Nashua and Lowell	14 1-2	380,000				84,079		8	94,588	34,944	10	126		
"	13	New Bedford and Taunton	20	430,962				50,671	24,000	6	64,998	24,000	6	102		
"	14	Northampton and Springfield		172,883	unfin.											
"	15	Norwich and Worcester	66	2,290,000	900,000	16,535	100	162,336	24,871		230,674	99,464	3	67		69½
"	16	Old Colony		87,820	unfin.									105		
"	17	Stoughton branch	4	63,075	unfin.											
"	18	Taunton branch	11	250,000					20,000	8	96,687	20,000	8	120		
"	19	Vermont and Massachusetts														
"	20	West Stockbridge	3	41,516	200		100						4			
"	21	Western, (117 miles in Mass.)	156	7,686,202	4,686,202	30,000		573,882	284,432		753,753	439,679	3	98½		97½
"	22	Worcester branch to Milbury		8,431	506											
"	23	Housatonic, (10 months,)	74	1,244,123							150,000			26		33
Con	24	Hartford and New Haven	38	1,100,000	100,000	10,000	100						6	93		
"	25	Hartford and Springfield	25 1-2	600,000	400,000	2,000	100									
"	26	Stonington, (year ending 1st Sept.,)	48	2,600,000	650,000	13,000	100	113,889			154,724	79,845		29		32
N. Y.	27	Attica and Buffalo	31	336,211				45,896	7,522		73,248	48,033	0			
"	28	Auburn and Rochester	78	1,796,342	200,000	14,000	100	189,693	112,000		237,667	152,007	6	109		103
"	29	Auburn and Syracuse	26	766,657			133½	86,291	27,334		96,738	52,544	6	116		
"	30	Buffalo and Niagara	22	200,000		1,500								100		
"	31	Erie, (446 miles,)		5,000,000										27½		31½
"	32	Erie, opened	53						48,000		126,020	59,075				
"	33	Harlem	26	2,250,000	750,000	30,000					140,685	62,399		61		62½
"	34	Hudson and Berkshire	31	575,613			50				35,029	1,789	0	11½		
"	35	Long Island	96	1,610,221	392,340	29,846					153,456	58,996	0	61½		65½
"	36	Mohawk and Hudson	17	1,317,893	400,000	10,000	100	69,948	58,780		79,804	45,763	0	56½		57
"	37	Saratoga and Schenectady	22	303,658				42,242	3,000	1	34,666	8,455	0			
"	38	Schenectady and Troy	20 1-2	640,800				28,043			32,646	6,365	0			
"	39	Syracuse and Utica	53	1,115,897	none.	16,000	62½	163,701	72,000		192,061	120,992	8	117		
"	40	Tonnawanda	43	727,332				76,227			114,177	75,865	5			
"	41	Troy and Greenbush	6	180,000										90		
"	42	Troy and Saratoga	25	475,801				44,325	21,000		38,502	9,971	2½			
"	43	Utica and Schenectady	78	2,168,165	none.	20,000	100	277,164	180,000	9	331,932	199'094	8	132		
N. J.	44	Camden and Amboy	61	3,200,000				682,832	383,880		784,191	404,956		112		
"	45	Elizabethtown and Somerville	26	500,000												
"	46	New Jersey	34	2,000,000										95½		
"	47	Paterson	16	500,000									6	88½		
Pa.	48	Beaver Meadow	26	1,000,000												
"	49	Cumberland Valley	46	1,250,000												
"	50	Harrisburg and Lancaster	36	860,000										30		
"	51	Hazleton branch	10	120,000												
"	52	Little Schuylkill	29	900,000												
"	53	Blossburg and Corning	40	600,000												
"	54	Mauch Chunk	9	100,000												
"	55	Minehill and Schuylkill Haven	19 1-2	396,117	25,000	7,019	50			12			12	80		
"	56	Norristown	20	800,000										6½		
"	57	Philadelphia and Trenton	30	400,000										104		
"	58	Pottsville and Danville	29 1-2	1,500,000												
"	59	Reading	94	9,457,570	7,447,570	40,200	50				597,613	343,511		25		24½
"	60	Schuylkill valley	10	1,000,000												
"	61	Williamsport and Elmira	25	400,000				20,000								
"	62	Philadelphia and Baltimore	93	4,400,000				43,043	200,000			210,000		15½		15½
Del.	63	Frenchtown	16	600,000												
Md.	64	Baltimore and Ohio, (1st Oct.)	188	7,623,600				575,235	279,402		658,620	346,946		48½		
"	65	Baltimore and Susquehanna	58	3,000,000										2½		
"	66	Baltimore and Washington	38	1,800,000				177,227	71,691		212,129	104,529		84		
Va.	67	Greensville and Roanoke	18	284,433	37,544	2,000	100				25,368	6,074		28		
"	68	Petersburg	63	969,880	63,000	7,690	100				122,871	72,898	3	77		
"	69	Portsmouth and Roanoke	78 1-2	1,454,171												
"	70	Richmond, Fredericksb'g and Potomac	76	800,000							185,243	85,688	6			
"	71	Richmond and Petersburg	22 1-2	700,000												
"	72	Winchester and Potomac	32	500,000												
N. C.	73	Raleigh and Gaston	84 1-2	1,360,000												
"	74	Wilmington and Raleigh	161	1,800,000												
S. C.	75	South Carolina	136	5,671,452		34,410	75				532,871	140,196	5			
"	76	Columbia	66					201,464	77,456		328,425	180,704				
Ga.	77	Central	190	3,000,000	500,000	22,500	100	227,532	93,190		248,096	147,523				
"	78	Georgia	147 1-2	2,650,000				248,026	158,207							
"	79	Montgomery and West Point	89	500,000	170,000		100				35,000	15,000				
Ky.	80	Lexington and Ohio	40	450,000												
Ohio	81	Little Miami	40	400,000												
"	82	Mad river	40	152,000												
Ind.	83	Madison and Indianapolis	56	212,000												
Can.	84	Champlain and St. Lawrence	15						12,000		58,000	24,000		110		

Correspondents will oblige us by sending in their communications by Monday morning at latest.

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AMERICAN RAILROAD JOURNAL.

PUBLISHED BY D. K. MINOR, 23 Chambers street, N.Y

Thursday, October 9, 1845.

THE COAL TRADE—SCHUYLKILL VALLEY.

The shipments by railroad are 23,712 tons, and by canal 9,612 07, making 33,385 01 tons for the week.

BY RAILROAD.

From Pottsville and Port Carbon—total	292,093
From Schuylkill Haven—total	299,921
From Port Clinton—total	15,806
Total by railroad	607,821

BY CANAL.

From Pottsville and Port Carbon—total	117,198
From Schuylkill Haven—total tons	32,863
From Port Clinton	38,753
Total by canal	188,815
Total by railroad and canal	796,636

LEHIGH COAL TRADE.

Total shipments from Mauch Chunk. Lehigh coal and navigation co.		
Summit mines, -	151,052	
Room run do., - -	57,493	208,545
Beaver Meadow railroad and coal co.,		64,631
From Penn Haven—Hazleton coal co.,		55,439
From Rock Port—Buck Mountain coal co.,		17,600
		346,215
WYOMING COAL TRADE—total		126,551
PINE GROVE COAL TRADE.—total		38,809
MINEHILL AND SCHUYLKILL HAVEN RAILROAD—total tons		331,765
MOUNT CARBON RAILROAD—total tons		199,854
MILL CREEK RAILROAD—total		59,421
SCHUYLKILL VALLEY RAILROAD—total		78,571

[Miners' Journal.

EARNINGS OF THE BUFFALO AND NIAGARA FALLS RAILROAD for the month of Sept., 1845.... $4,010 22
" " " 1844.... 2,961 09

Difference.... $1,049 13

We have received, by the arrival of the Cambria at Boston, full files of the different London Railway and Mining Journals of the latest dates. The accounts in relation to the iron trade, show a disposition among the iron masters to advance the price.—The quotations do not vary much from those of 29th August, though hoops and sheet are quoted higher; yet there is a decided tendency to advance. It can hardly be otherwise, when there are so many railroads to be made. The following extracts from communications made to the Mining Journal by those familiar with the trade, will be of interest to many of our readers.

Iron.—Welsh and Staffordshire very firm at quotations; in Scotch pig several sales made this week at 80s., which is now the lowest price with dealers, some of the masters demand 90s. In Swedish iron and steel there has been very little doing since the publication of last week's *Mining Journal*.

Communicated by Messrs. Whitcomb and Barton, Old Broad Street.—English bar iron continues firm at quotations; in Scotch pig iron business has not been so brisk this week, but holders refuse to sell under 77*s.* 6*d.* cash, and 80*s.* four months, adding interest; Welsh and Staffordshire iron sells freely at advanced rates, and a further rise confidently expected. In rails very large orders are daily appearing in the market, both for immediate and future delivery, and there are now no sellers under £10 10*s.* for the latter.

We find many interesting matters in our foreign railway journals, which will be noticed in our next.

One of great importance is the *atmospheric* railway, five miles of which, on the Croydon line, is so far advanced as to have been tried several times with entire success. The exhaustion of the 5 miles of tube was effected with one engine and a vacuum of 26 inches obtained.

The experiments were of course made with great care, yet a speed as high as 65 miles was attained at one point and an uniform speed of 43 miles was carried through on one trip, or 5 miles in 7 minutes.

There are still various opinions in relation to the success of the system—*that* of course—so there was in relation to the Erie canal, so also, of the success of railroads and locomotive engines. Many were disappointed and others probably will be in relation to this new plan.

We shall give next week such concise accounts as we find in the English journals.

The Dublin and Drogheda railway working expenses are said, in the Railway Express, to have been reduced to 31 per cent. of the gross receipts.

New York and Erie Railroad.

In accordance with notice previously given, the subscription books were opened on the 8th ult. and closed on the evening of Saturday the 4th *inst.*, giving only *twenty four* working days to fill up the subscription of *three millions* of dollars. The directors have given evidence of their fitness and ability for the station they occupy, in the result of their efforts in this instance. It now becomes the duty of the subscribers, to show equal promptness and energy in the performance of their part of the business, that the directors—who not only *work* without pay, but also subscribe and pay more than any others—may be encouraged to renewed efforts to complete what they have so successfully commenced.

Oswego and Syracuse Railroad.

We are pleased to learn that the commissioners, now here, to obtain subscriptions to a part of the capital for this road, are progressing, and that they have a fair prospect of success. There ought to be no delay in the matter, as there are enough here directly interested in the property along, and at the termini of the line, to take the amount, besides the *general* interest which this city has in the work.

Hunt's Merchants Magazine.

We have before us the number for October. It was as usual, out punctually; and, *as usual*, also, it contains a vast amount of useful reading, and should be in the possession of every business man in the country. The list of contents covers nearly two pages, under the following general heads, viz: Commerce before the christian era; the government and currency; the commerce and progress of Chili; sketches of trade and manufactures in Belgium; the mining system of Chili; the champaigne districts of France; ocean steam navigation; progress of English railways; mercantile law department; Commercial Chronicle and Review; commereial statistics; railroad and canal statistics; nautical intelligence, and mercantile miscellanies.

It affords us pleasure to learn that it is well sustained and constantly increasing its circulation.

Manchester and Leeds Railway Company.

Eighteenth semi-annual meeting. The 18th half yearly meeting of this company, was held on the 3d of September, in Manchester, when a lengthy and very satisfactory report was made to the shareholders. This road is sixty miles long, very crooked, and with steep gradients, and has cost up to 30th June last, £3,372,240 9*s.* of which £1,487,389, is paid up capital, and £1,884,851 9*s.* raised by loans. The business of the last six months, exceeds that of the corresponding six months of last year, by £23,892 12*s.* 9*d.*, notwithstanding, perhaps we ought to say, *in consequence of* "an important reduction having "been made early in the year, on the passenger fares "and in the rates on certain classes of merchandize." The gross receipts for the six months, were £153,279 10*s.* 8*d.*, and the total expenses including rates, taxes and duty, £52,046 18*s.* 1*d.*, leaving a balance of £101,232 12*s.* 7*d.* The gross receipts for the year, were £315,098 19*s.* 8*d.*, and the expenses £110,247 2*d.* leaving a balance of £204,851 19*s.* 6*d.*, or 6¼ per cent., on the total expenditure; but a large proportion of the outlay was raised by loans, it enables them to divide 8 per cent. on the amount raised by shares and have a considerable surplus on hand.

The present indications for increased business on the numerous railways in England are exceedingly favorable—and that our readers may see what *has* been the increase of receipts upon this road, notwithstanding the reduction of charges; we give the following comparative statement of the first six months of 1843, '44 and '45.

The number of passengers booked during these periods, were, in the first six months of 1843—552,639, same period in 1844—673,605, and in 1845—851,497, thus showing an increase in 1844 over the previous year, of 120,966, and in 1845, of 177,892 over 1844—showing conclusively the influences of reduced charges, on the business of the country.

☞ The extract marked for insertion, is unavoidably omitted until our next number.

The editor of the Railway Times, has the following remarks upon the meeting of this company, viz. "The most important feature of this most busy week, is unquestionably the meeting of the Manchester and Leeds company—an undertaking which in spite of its enormous cost, and the steepness of its gradients, continues to carry, with increasing profit, a mass of traffic, in proportion to its extent, second to none in the kingdom. Indeed it may be said of the Manchester and Leeds railway co. that their business is becoming too great 'embarrass de richesses.'"

Railway Cars, Progress of Improvement.

We understand that the Eastern railroad, from Boston to Portland, have recently put several new cars upon their road, which, for convenience, comfort and elegance, surpass every thing of the kind yet seen on American railroads—and when we say that, we can make no further comparison, as the European cars do not, we are informed, at all compare with ours. The following description is from one who has rode in them—which we intend soon to do—and, as it may lead other companies, that we could mention, to give their numerous passengers similar comforts, for equal and superior compensation; we publish it for the good of all parties—not forgetting, by any means, the enterprizing manufacturers, Messrs. *Davenport and Bridges*, of Cambridgeport, near Boston.

Each car seats about 70 persons; each seat is a separate arm chair, made to turn on a pivot, and is

covered with red velvet plush. The cars are 9½ feet wide, which gives ample room for each passenger; (they are about one foot wider than cars are usually built,) instead of carpeting the floor, they have a double floor; the top one is of cherry, and black walnut, laid in diamond form—the sides of the cars are lined up with branch mahogany. They are highly spoken of by all who have rode in them, and they are said to be the best finished and easiest motioned cars they have ever seen—cost $2,200 each.

The article of Mr. Herron on the wear of railroad iron, should be read with care. We can speak from our own observation, in relation to the superior ease to the passenger, when passing over that part of the road where his plan of superstructure is adopted, as compared with that on other parts of the road; and it follows, we think, of course that the iron will last longer upon it than upon the simple crosstie. This plan has frequently been referred to in this Journal. In the number for Nov. 15, 1840, Aug. 1, 1841, and July 1, 1842, will be found references to it, and we shall probably be able soon to give some further account of it. We shall endeavor to do so that if it is superior and not more expensive, it may be introduced upon some of the numerous railroads soon to be constructed.

Portland Railroad.--Canadian Affairs.

We were not a little surprised to see it stated in a late Montreal paper that the subscriptions in that city did not reach £100,000 ($400,000), Of the two millions required for Canada only $500,000 were allotted to the province and this—for the city of Montreal—trifling amount, has not yet been raised! It appears that four times the amount to be raised in England was subscribed there at once by *speculators*, desirous no doubt of obtaining the control of the work so as to hold till it would command a premium in the market and to avoid the annoyance of paying up instalments. The shares were given to those most likely to take some interest in the work, yet it appears that the agent finds some trouble in securing the payment of the first instalment.

The little town of Portland has done more than twice as much as Montreal, although the incidental advantages to the latter city will be greater than to the former. We hope they will continue the system begun in Baltimore and so extensively carried out in New England, of working from tide water into the interior, so as to render the capital productive in the least possible time. There can be no doubt that the railway system of Massachusetts owes its success to the brilliant results of the Providence, Worcester, Lowell and Eastern railroads, and just as little, that our present deplorable inferiority must be ascribed to the failure of all our railways east of Schenectady. If the statements of the friends of the Portland railroad be well founded the construction of the work is certain even without extraneous aid. It is very fortunate that the first division presents the fewest engineering difficulties, so that by the time the greatest obstacles are to be encountered the confidence of the stockholders will be fully adequate to the emergency.

The *Toronto Patriot* announces the appointment of a commission to inquire into the management of the Board of Works and appears to anticipate much good from it. He asks pathetically where are the £1,500,000 stg. gone? And says that "echo and Mr. Killaly answer '*where?*'" He appears to be as unlucky as we have been in our inquiries as to that functionary. So far are we from anticipating any good that we should not be surprised, if the whitewashing, which this commission will certainly put on with no sparing hand, should be the means of getting an additional loan to "complete the works" and make the board "comfortable."

Regrets are vain and perhaps foolish, but we cannot help picturing to our mind's eye the almost magical effect which a judicious application of the money, spent during the last few years, would have had on the prosperity of the country. In place of a few miles of canal adapted, perhaps, to the wealth, population and trade of Holland, we should have hundreds of miles of cheap but efficient railways adapted to the resources and wants of Canada; instead of half a million of dollars of annual deficiencies we should scarcely be able to keep down a surplus; instead of a futile attempt to aid the carrying trade from the western states we should have had an immense trade in *Canadian* flour and British merchandize, and, lastly, instead of turning crowds of emigrants to the far west we should see them quietly and permanently settle where good communications existed and no public burdens awakened their fears. Some short time hence, the people of Canada will awake too late to the fatal effects which have resulted from entrusting the public works, where the highest professional skill, combined with a thorough knowledge of the country, would have found abundant room for the display of its resources, to an individual whose very name is unknown at the "Institution of Civil Engineers." As friends of private enterprize we might rejoice at the failure of the *last* set of government works in this quarter of the globe, but as friends of railroads, the great improvement of the age and so admirably adapted to the climate, country and resources of Canada, we may perhaps be pardoned this expression of our unavailing regrets.

The friends of the two routes to Detroit have, we suppose, agreed to unite on one; at least we hear of no rivalry, and they have decided on the same termini: Buffalo and Detroit. An agent has gone to London to offer the stock there, and we believe that the friends of the line from Toronto to Port Sarnia, have also an agent in England. It is probable that several roads will be chartered during the coming session, with what chance of ultimate success we cannot pretend to say. The railway spirit is however awakening there and if its *first* efforts be happily directed, the rapid extension of this unrivalled mode of communication may be calculated on with safety. The great drawback is of course the unfortunate adoption of the system of government engineering: people will not readily spend their own money, even on small works, when they find their neighbors obtaining all they desire at the public expense. They naturally ask, how is this done? The answer is, by tampering with the legislature; thus the whole becomes one scene of corruption—the real objects of the work, the interests of the public and the warnings of professional men of character, are alike disregarded in the general scramble for the money of the steady, orderly inhabitants who pay the taxes to support a policy as degrading in a moral point of view as it is ruinous financially considered.

THE CHESAPEAKE AND OHIO CANAL.—The Chesapeake and Ohio canal company have entered into a contract with Walter Gwyn, William Beverhout Thompson, James Hunter and Walter Cunningham, for the completion of the canal to Cumberland within two years from this time, and the agents of the state of Maryland have approved the contract. The work is to be commenced within thirty days from the 25th inst.

For the American Railroad Journal.

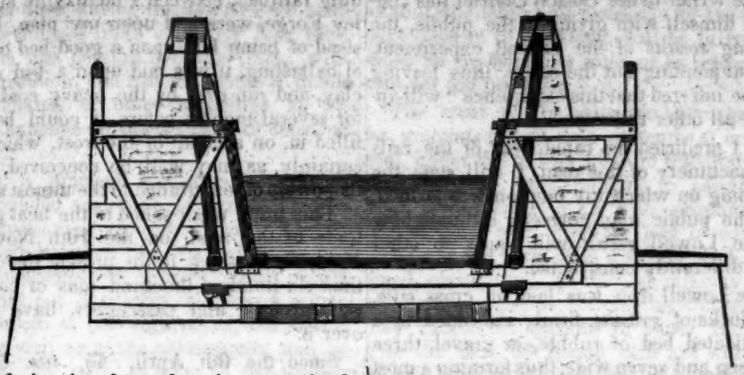
The Wire Suspension Aqueduct over the Allegheny River at Pittsburg.

The work recently constructed under this superintendence of John A. Roebling, the designer and contractor, has supplied the place of the old wooden structure, which originally was built by the state of Pennsylvania, at the western termination of the Pennsylvania canal.

The council of the city of Pittsburg, by whom, in consequence of an arrangement with the state, the tolls on this aqueduct are of late received, and who are bound to keep the work in repair, decided on rebuilding, and after considering various plans, adopted that of Mr. Roebling, and entered into contract with him, to reconstruct the communication for the gross sum, including the removal of the old ponderous structure and the repair of the piers and abutments, of $62,000, a very small sum indeed for a work of such magnitude. As this work is the first of the kind ever attempted, its construction speaks well for the enterprize of the city of Pittsburg.

The removal of the old work, was commenced in September, 1844, and boats were passed through the new aquaduct in May 1845. This work consists of 7 spans of 160 feet each, from centre to centre of pier; the trunk is of wood, and 1140 feet long, 14 feet at bottom, 16½ feet on top, the sides 8½ feet deep. These as well as the bottom, are composed of a *double* course of 2½ inch white pine plank, laid dioganally, the two courses crossing each other at right angles, so as to form a solid lattice work of great strength and stiffness, sufficient to bear its own weight, and to resist the effects of the most violent storms. The bottom of the trunk rests upon transverse beams, arranged in pairs of 4 feet apart; between these, the posts which support the sides of the trunk, are let in with dovetailed tenons, secured by bolts. The outside posts which support the side walk and towe path, incline outwards, and are connected with the beams in a similar manner.—Each trunk post is held by 2 braces, 2½×10 inches, and connected with the outside posts by a double joist of 2½×10 inches. The trunk posts are 7 inches square on top, and 7×14 at the heel; the transverse beams are 27 feet long and 16×6 inches, the space between two adjoining is 4 inches. It will be observed, that all parts of the framing are double with the exception of the posts, so as to admit of the suspension rods; each pair of beams is on each side of the trunk, supported by a double suspension rod of 1¼ inch round iron, bent in the shape of a stirrup, and mounted on a small cast iron saddle, which rests on the cable; these saddles are on top of the cable, connected by links, which

Section of the Suspension Aquaduct at Pittsburg, Pa.]



diminish in size from the pier towards the centre. The sides of the trunk rest solid against the bodies of masonry, which are erected on each pier and abutment as bases, for the pyramids which support the cables.—These pyramids which are constructed of three blocks of a durable hard sand stone, rise 5 feet above the level of the sidewalk and towpath, and measure 3×5 feet on top, and 4×6½ feet in base. The sidewalk and towpath being 7 feet wide, leave 3 feet space for the passage of the pyramids. The ample width of the tow and footpath is therefore contracted on every pier, but this arrangement proves no inconvenience, and was necessary for the suspension next to the trunk.

The caps which cover the saddles and cables on the pyramids, are suspended next to the trunk, one on each side, each of these two cables is exactly 7 inches in diameter, perfectly solid and compact, and constructed in one piece from shore to shore, 1175 feet long; it is composed of 1900 wires of $\frac{1}{8}$ inch thickness, which are laid parallel to each other, great care has been taken to insure an equal tension of the wires. Oxidation is guarded against by a varnish, applied to each wire separately, their preservation however is insured for certain by a close compact and continuous wrapping, made of annealed wire, and laid on by machinery in the most perfect manner. A continuous wrapping is an important improvement, which in this case has for the first time been successfully applied.

A well constructed and well wrapped cable presents the appearance of a solid cylinder, which in strength greatly surpasses a chain, made of bars of the same aggregate section or weight. It is not only the great relative strength of wire, which renders it superior to bar iron, but its greater elasticity, which enables it to support strong and repeated vibrations, add still more to its value as a material for bridge building.

The extremities of the cables do not extend *below* ground, but connect with anchor chains, which in a curved line pass through large masses of masonry, the last links occupying a vertical position. The bars composing these chains, average 1½×4 inch, and are from 4 to 12 feet long, they are manufactured of boiler scrap, and forged in one piece without a weld. The extreme links are anchored to heavy cast iron plates of 6 feet square, which are held down by the foundations, upon which the weight of 700 perches of masonry rest. The stability of this part of the structure is fully insured, as the resistance of the anchorage is twice as great as the greatest strain, to which the chains can ever be subjected.

The plan of anchorage adopted on the aqueduct, varies materially from those methods usually applied to suspension bridges, where an open channel is formed under ground for the passage of the chains. On the aquaquct, the chains below ground are imbedded and completely surrounded by cement. In the construction of the masonry, this material as well as lime mortar, have been abundantly applied. The bars are painted with red lead; their preservation is rendered certain by the known quality of calcareous cements, to prevent oxidation. If moisture should find its way to the chains, it will be saturated with lime, and add another calcareous coating to the iron. This portion of the work has been executed with scrupulous care, so as to render it unnecessary on the part of those, who exercise a surveillance over the structure, to examine it. The repainting of the cables every two or three years will insure their duration for a long period.

Where the cables rest on the saddles, their size is increased at two points by introducing short wires, and thus forming swells, which fit into corresponding recesses of the casting. Between those swells the cable is forcibly pressed down by three set of strong iron wedges, driven through openings, which are cast in the sides of the saddle.

When the merits of the suspension plan were discussed previous to the commencement of the structure, doubts were raised as to the stability of the pyramids and the masonry below, when unequal forces should happen to disturb the equilibrium of adjoining spans. It was then proved by a statical demonstration, that any of the arches with the water in the trunk could support an extra weight of 120 tons, without disturbance to any part of the work. In this examination no allowance at all was made for the great resistance of the woodwork and the stiffness of the trunk itself. During the raising of the frame work the several arches were repeatedly subjected to very considerable unequal forces, which never disturbed the balance and proved the correctness of previous calculations.

The stiffness and rigidity of the structure is so great, that no doubt is entertained, that each of the several arches would sustain *itself*, in case the woodwork of the next one adjoining should be consumed by fire. The woodwork in any of the arches separately may be removed and substituted by new material, without effecting the equilibrium of the next one.

The original idea, upon which the plan has been perfected, was to form a *wooden trunk*, strong enough to support its own weight, and stiff enough for an aquaduct or bridge, and to combine this structure with wire cables of a sufficient strength to bear safely the great weight of water.

The plan of this work therefore is a combination, which presents very superior advantages, viz. *great strength*, *stiffness*, *safety*, *durability* and *economy*.

This system for the first time successfully carried out on the Pittsburg aquaduct, may hereafter be applied with the happiest results to railroad bridges, which have to resist the powerful weight and great vibrations which result from the passage of heavy locomotives and trains of cars.

Remark.—The quantities in the following table are calculated for a depth of water of 4 feet, which has been in the aquaduct ever since the opening. The depth contemplated, was 3½ feet, a greater depth is at present required, on account of the raising of the bottom of the canal by bars and sediment which have to be removed before the level can be lowered.

TABLE OF QUANTITIES ON AQUADUCT.

Length of aquaduct without extensions.	1,140 feet.
" cables	1,175 "
" cables and chains	1,283 "
Diameter of cables	7 inches.
Aggregate weight of both cables	110 tons.
Areal section of 4 ft. of water in trunk.	59 feet.
Total weight of water in aquaduct	2,100 tons.
" " one span	295 tons.
Weight of one span including all	420 tons.
Aggre. number of wires in both cables.	3,800
Aggregate solid wire section of both cables in superficial inches	53 inches.
Aggre. solid section of anchor chains.	72 inches.
Deflection of cables	14 ft. 6 inches.
Elevation of pyramids above piers	16 ft. 6 inches.
Weight of water in one span *between* piers	275 tons.
Tension of cables resulting from this weight	392 tons.
Tension of a single wire " "	206 lbs.
Average ultimate strength of one wire.	1,100 lbs.
Ultimate strength of cables	2,090 tons.
Tension resulting from weight of water upon one solid square inch of wire cable.	14,800 lbs.
Tension resulting from weight of water upon one sq. inch of anchor chains.	11,000 lbs.
Pressure resulting from weight of water upon a pyramid	137½ tons.
Pressure resulting from weight of water upon one superficial foot of pyramid.	18,400 lbs.

For the American Railroad Journal.

Wear of Railroad Iron.

An article under this head appeared in the United States Gazette of July 19th, and I see it has been copied into the American Railraad Journal of the 31st, with the following remarks:

"The following article from the Boston Courier of July 15th, contains some valuable facts in relation to the wear of the 56 lbs. iron of the second track of the Lowell road.

"It appears from these facts, that the cost of renewing the iron of this road, is about equal to *one cent per ton, of freight per mile*, estimating the passengers and baggage as so much freight.

"As the destruction of iron, according to this experience, greatly exceeds the usual estimate of the value of this item, it would be well to call the attention of engineers to this important subject, with a view to provide some adequate remedy."

The article referred to, which has thus gone the rounds without contradiction; so far as I have seen, states the whole freight, passengers and baggage, that passed over the Lowel road in 7½ years, up to July 1845, at 840,000 tons, one half of which, or 420,000 tons, passed over the second track, rendering the iron upon it unserviceable to a great extent. The writer says:—

"We have at last the means of forming a very safe estimate of the durability of a 56 pounds, to the yard, edge rail, when well laid on an even and well adjusted track.

"The first ten miles of the second track, of the Lowell road, was first brought into use in 1838, after the 'fish-belly rail' had been found inadequate. The new rail was of the H pattern—the form now most generally approved."

He concludes, after stating the trade, and renewals of the iron made:

"They will be compelled to make additional renewals this year, and probably to change the iron on the whole of this ten miles in the course of next year. The durability of this rail may, therefore, be set down at 500,000 tons. The lowest estimate we have ever seen of the powers of a good edge rail, is 1,000,000, etc., etc.

Taking it for granted that these statements are correct, it is certainly calculated to cause not only surprize, but even dismay, in the the minds of those who have embarked their capital in railroads, to learn in addition to the above, that this track was built at an unsparing expense, with a view to permanency; and cost, if I recollect aright, nearly double the average cost of the best tracks in the union. Yet I, for one, am by no means surprized at the result. In fact, I had the temerity to predict, in a conversation held with Major Whistler, at Springfield in 1841, that the track and machinery of the Lowell road, would be worn out with much less use than that of any other road in the union.—And again, without having seen it in the meantime, I repeated the prediction about eighteen months ago, in Jones Hotel, in this city, in a conversation with Mr. P. T. Jackson, the president of the company, in the presence of Mr. John Tucker, the president of the Reading railroad. I did not pretend to say how many tons would wear it out, I could only form a comparative estimate between it and other tracks more judiciously constructed.

The object of these remarks, is to establish the fact that the unusually rapid wear of the Lowell iron was foreseen, and predicted, and I doubt not, there were many other engineers, who came to the same conclusions I did, regarding it.

The writer in the Boston Courier has contented himself with giving to the public, the startling results of the Lowell experiment, without pointing out the cause, thus leaving it to be inferred that this experience "will apply to all other railways."

As I predicted the rapid wear of the rails and machinery of this road, I will state the reasoning on which my opinion was formed, that the public may correctly estimate how far the Lowell result will apply to other roads differently constructed.

The Lowell iron was laid on cross sills, and blocks of *granite*, firmly imbedded in a consolidated bed of rubble, or gravel, three feet deep and seven wide, thus forming a most *rigid* and *unyielding* way. There is no spring in such a track, to ease the shocks and jolts, from the bounds of the engines, the irregularities of the wheels, axles and joinings of the rails. Hence the rapid crushing of the iron, in accordance with a well established law of natural philosophy, which has been fully verified by the rather dearly purchased experience of the New York and Harlem, the Philadelphia and Columbia, the Baltimore and Ohio, as well as by the Lowell and many other railroads throughout the United States.

The engineers of the Baltimore and Ohio railroad, in their truly valuable "report, upon the plan of construction of several of the principal railroads in the northern and middle states," etc., published in 1838, make the following remarks, in describing the Harlem road, page 4:

"Within the city the plate rail is laid upon stone sills, disposed longitudinally to afford a continuous support to the rail, a mode of construction now highly inexpedient, on account of the experience already afforded *here* as well as upon our own road, of *quick dilapidation by the wearing of the stone* and the *crushing of the rails*, as well as the *detsruction of the machinery connected with the motive power*."

These remarks will apply with equal force to the T and H rails when laid on stone.—And, as the hard sienitec granite of the Lowell road, would not wear out like the soft gneiss used in the Baltimore road, the wear of the iron would be proportionably increased in the former.

Such was the reasoning, and in part, the experience, on which I formed the opinion I expressed in regard to the rapid wear of the Lowell iron. But my opinions on this subject were formed, and freely expressed, ten years before the first period named, or as early as 1831, when the granite and iron track was first proposed. I then predicted its utter failure, in a discussion on the subject with C. Crozet esq., then principal engineer of Virginia, with whom I was at the time engaged as an assistant engineer.

The result of my experience, and observation, through a period of more than fifteen years, has led me to advocate the continuous bearing of the iron rails upon timber, and to devise a plan of track that combines a uniformly even surface, with a general elasticity of structure, *so as to save the wear of the rails and machinery, and greatly lessen the expense of adjustments.*

Three miles of the new track of the Reading railroad, between Phœnixville and valley Forge, were laid upon my plan, but instead of being laid upon a good bed of gravel ballasting, it was laid upon a bed of wet clay, and run over by the heavy coal trains for several months before it could be fully filled in, on account of the frost, which has, certainly, as may well be conceived, tested its powers of endurance to the utmost stretch.

This track was opened to the heavy down trade of the road, on the 10th November 1844, since which, to the present time, more than six hundred thousand tons of coal, besides freight, and passengers, have passed over it.

Since the 9th April, '45, *two laborers alone have been kept on those three miles, making the necessary adjustments, where the road bed settles, and all repairs.*

Their wages for the months of April, May and June, was $112, which was the whole expense of labor upon the track for these three months, during which time, more tonnage actually passed over it than passed over the new track of the Lowell road the three first years it was in use, according to the writer in the Boston Courier. And now 125,000 tons more, have actually passed over it, than is said to have worn out the Lowell iron altogether, yet the rails, as may be seen are generally little more than brightened on the surface, and certainly, not one rail in one hundred bars, shows any degree of exfoliation or splitting whatever, nevertheless, there are some bad rails on this three miles. It so happened that the iron put upon my track, was from a damaged cargo; these rails were deeply corroded and badly bent, in various directions, so that they could not be perfectly straightened, although heavy sledges were freely used upon them, as well as other means, and a large amount of labor expended in the effort. Being used in this condition, the short bends in the rails gives the track in places the appearance of being slightly out of line, which is only discernable, however, by a very experienced eye, and close observation. The real injury lies in the contortions the rails have suffered.

It is well known that every permanent bend of an iron bar, is a partial fracture, and it is also known to smiths, that re-bending and hammering will separate imperfect welding.

In the distance laid upon my plan, there are about 1710 rails, out of which 10 have been removed in consequence of splitting, showing, in every instance, the clearest evidence of imperfect welding. Some of these rails have had the split end cut off, and were again placed in the main line, but as they generally split along the middle of the bar, they have, in most cases, been transferred to sidelings.

Thus, out of 1710 rails, that were, as before stated, extensively damaged, only ten bars have been wholly, or in part, removed from the main track, over which six hundred and twenty-five thousand tons have rolled to market, which is *less than six-tenths of one per cent.*

The two laborers before mentioned, took

out those defective rails, and replaced them by sound ones, during the *day time* while the immense diurnal trade of nearly four thousand tons was passing over the track, without interruption, and this too without breaking the chairs, or other fastenings, as frequently happens on the old plans of construction.

Thus, a practical refutation is given, to the unfounded assertions, or erroneous opinions, industriously circulated, that "it is difficult to adjust when the road bed settles, and almost impossible to repair." This refutation could not at present, (I almost regret) be extended to the repairs of the timber work, as well as to the adjustments, and removal of the rails, as none of the timbers had been broken by last winter's frosts, aided by the heavy engines, as was confidently predicted by *some distinguished* members of the profession, who had the modesty, at the same time, however, to confess themselves incapable, of adjusting and repairing it, a feat of skill, that we see has been accomplished, as far as required, by two common laborers.

As two men have been found ample to keep in adjustment and repairs, those three miles of track upon which so heavy a trade rolls, it is evident, that if the adjoining track, upon which little more than the empty cars return, were laid upon my plan, an additional laborer would be ample to keep the three miles of double track in order; and, indeed, if the tracks were laid on gravel, the two men would be sufficient on the three miles of double track.

But, allowing one man to each mile of double track, the usual wages paid by the company to the road hands, amounts to about $250 per annum. Allowing $10 dollars to each man for tools, and we have $260 per mile of double track, as the cost of labor, which for 94 miles amounts to $24,440.—The company's estimate for keeping the road in repairs is $1000 per mile; or $94,000 for the whole distance. This is $69,560 more than a liberal allowance for labor and tools would be on my plan. But this sum probably includes repairs on bridges, in addition to materials for the repairs of track.

With regard to the repairs of the bridges, if they be properly strengthened, and secured from the weather, they will absolutely require little or no repairs; and even the expense of watchmen (which I believe is not included in the above sum) may be dispensed with, by coating the timber with the silicate of potash, and afterwards with lime, which will form a crust of hydraulic cement, that will effectually protect the wood from fire and water.

As the timber of my track has been thoroughly impregnated with one of the most powerful antiseptics, at present known (by cloriate of Mercury,) its durability is placed beyond computation; parts may occasionally be damaged by accident, or otherwise, and require renewing, this together with the fastenings that may be broken, and the renewal of the crossing castings, at switches etc., will be amply provided for by $100 per mile, or $9,400 for the whole distance.

Thus with a trade of 1,000,000 tons per annum, the labor and materials for the ordinary repairs of roadway, will be fully provided for by $360 per mile, or by $\frac{36}{1000}$ of a cent per ton per mile.

The wear of the rails, we have seen, so far, amounts to less than six-tenths of one per cent. under the rolling trade of 625,000 tons. It is, therefore, very difficult to assign the limit of durability of a well proportioned rail, of good iron, properly laid to suit the wheels of the cars, upon a strong well combined, elastic track, so that the rail may have an even continuous bearing on timber. It may exceed ten millions of tons. But suppose the new 60 pound rails are worn out by five millions of tons, (the rails laid upon my track, however, marked R, I found, when undamaged by rust, weighed but 59·2 lbs. per yard; while those more generally laid on the new track, marked T, weight 61·12 lbs. per yard) and that they cost $6,500 per mile. The old iron will be worth fully two-thirds the first cost. The writer in the Boston Courier allows $4,700 per mile for the old 56 lbs. rails of the Lowell road; but to be very safe, I will allow only $4,000 for the 60 lb. rails.

The rails on my track are secured by screw bolts, which affords great facility in removing and replacing them. It has been ascertained that a rail can be taken out and replaced by another, even singly, at seventy-five cents each, which would be a little more than $400 per mile.

Renewing them throughout, can of course, be done at a much less expense; but allowing for contingencies etc., say $500 per mile

The cost of the new iron $6,500, less the value of the old iron $4,000, leaves $2,500, which added to the cost of laying it $500, and we have $3,000 per mile of track, as the cost of renewal, which divided by 5,000,000 tons, gives *six hundreths* ($\frac{6}{100}$) *of a cent per ton per mile, as the value of the wear of iron, when properly laid, instead of one cent*, which applies only to the Lowell granite track, and such others as may be similarly constructed.

A part of the expense of transporting coal on the Reading railroad, consists in the return of the empty cars to the mines, which pass up on the adjoining track. And as the wear of the iron will be in a measure proportionate to the weight, but in a less ratio for light weights, we shall make ample allowance by taking it at one-third, of the above estimate, for the empty car track, or $\frac{2}{100}$ of a cent per ton of coal per mile.

The cost of maintaining the double track way, will, therefore be:—

Wear of iron on down track per ton per mile.	·06
Do " " on up track " " " " ..	·02
Annual repairs and adjustment of both tracks	·036
Making together per ton per mile.....cents	·116

Multiplying ·116 cents by 94 miles, gives $\frac{9}{10}$ cents, as the cost of railway per ton of coal, from Pottsville to Richmond.

Here then, are two extreme cases. We have on the one hand, the Lowell granite track, built of such rigid unyielding materials, that the iron upon it is said to have been rapidly crushed, *at the rate of a cent a ton per mile, with 500,000 tons.*

On the other had, we see that on a strong, but elastic track of timber, designed expressly to save the wear and tear of iron, and machinery, the wear of the rails has been so far reduced, that even with damaged iron, it has been less than *six-tenths of one per cent. under the rapid passage of 625,000 tons*, nor is it at all likely to exceed the estimate given above.

James Herron.
Civil engineer.
No. 277, S. 10th street, Philadelphia.

We have a few remarks to offer on the above. It is said that the rails on the Lowell road are destroyed and Mr. H. gives some sound reasons to show that the iron on that road will fail more rapidly than on any other in this country. We should be pleased to see a statement of the number of *gross* tons which have passed over these rails, the velocities of freight and passenger trains, the weight on the driving wheels of the engines, the actual condition of the rails when removed and their present market value, from some gentleman connected with the road. We do not know whether the rails are worn out, crushed, or merely taken away because inadequate to the larger engines now coming into use. In short, we have a mere newspaper statement and not a particle of engineering information on the subject. On only too many roads such information cannot be obtained, because there is no one capable of investigating the subject and presenting it to the public, but the Lowell road was long under the direction of Mr. Storrow, a gentleman peculiarly qualified by experience and scientific attainments to give a complete exposition of all the circumstances attending and affecting the wear of the rails on that work. His views would have great weight with the profession and through them with that portion of the community taking an interest in railways.

The condemnation of the superstructure of the Lowell road is also quite too sweeping. Admitting it to be most injudicious to place the iron on granite crossties without any intervening substance, it by no means follows that the mere interposition of a small block of wood would not in a great measure remedy the defect, or, better yet, that a continuous wooden sill under the ⊥ or bridge rail might not convert this into the best superstructure in this country. We hope that this or some other expedient may be tried before banishing the granite ties and substituting the usual—we might almost say, the stereotyped superstructure of New England, first introduced by Messrs. McNeill and Whistler on the Providence road.

An engineer who has kept his eye on all the improvements in railways, considers the want of a means of easy adjustment to be a radical defect in all plans of superstructure yet adopted. A concise statement of the superior facility which Mr. H.'s system presents for this operation would unquestionably be of interest to many of our readers. We think we have seen it stated in the English scientific journals that the process of "Kyanizing" is generally considered to have failed in imparting any durability worthy of notice to timber used in railways, but Payne's process appears to be highly spoken of. As yet, however, there is no process for this purpose which can be considered as fairly established, nor can it be said, according to our views, that the discussion on the wear of railroad iron in this country has led to any statements from which the actual wear of any

given rail under given conditions of traffic and size of engine could be even approximated. It must be remembered that the original 36 lbs. rail at Liverpool was for 6 ton engines at 10 miles per hour and we scarcely exaggerate when we say that the wear and strain from 16 to 18 ton engines at 40 miles per hour are twenty times as great. We freely admit that our opinion on the subject may not be deemed very weighty, but we are pretty confident that, with track and machinery well kept up, the wear of iron rails will form a *very small* proportion of the cost of transportation on railways. On the other hand the durability of timber has fallen very far short of the expectations of even the least sanguine.

AMERICAN RAILROAD IRON.—The Montour company at Danville have made arrangements to supply railroad iron to re-lay the track from Lancaster to Harrisburg at $70 per ton. We learn that the Mine Hill and Schuylkill Haven co. have also contracted with the Montour company, for iron to re-lay their light track, and also to extend the road to Tremont in the Swatara region.

There are now three establishments for the manufacture of railroad iron in this country, all of which have sprung into successful operation under the tariff of 1842. If the tariff remains unchanged, competition will soon cause American railroad iron of a superior quality to be purchased as cheap as the English supplied us with iron from 1836 to 1840 when there was no duty upon this article. We shall allude to this subject again next week.—*Miner's Journal*

TONAWANDA RAILROAD COMPANY.—The following persons were, on the 18th instant, elected directors of this company for the ensuing year, viz: Hemen J. Redfield, Benjamin Pringle, Chas. M. Lee, Thomas Kempshall, Joseph Field, Samuel Dana, James Brisbane, Thomas H. Newbold, Lewis Brooks, George H. Mumford, Asa Sprague, William F. Weld and Frederick Whittlesey. At a subsequent meeting of the directors, Hemen J. Redfield was elected president, and Thomas Kempshall vice president.

RAILROAD FROM LOCKPORT TO ROCHESTER.—A meeting, numerously attended, was held at Lockport on the 12th inst., on the subject of a railroad from that place to this. The following gentlemen were appointed a committee to open books, and to receive subscriptions: Lot Clark, William O. Brown, John P. Smith, Asa W. Douglass, and Orsamus Turner.

RAILROAD TO CHICOPEE.—The directors of the Connecticut river railroad company, at their recent meeting, voted to construct a branch railroad from Cabotville to Chicopee falls, a distance of two miles. It is estimated that the expense will be from twenty-five to thirty thousand dollars.

HUDSON RIVER RAILROAD.—We learn that funds for the survey of a railroad route on the east bank of the Hudson, from this city to Albany, have been provided, and that John B. Jervis, Esq. has been engaged as chief engineer. He will enter upon his duties in about a fortnight.

Measures are in progress for the survey of a railroad from Salem, Mass., to Andover, to intersect with the Boston and Maine railroad, and shorten the route to Lowell.

Books have been opened for a telegraphic communication between Boston and Portland, with the privilege of extending the same to Brunswick, Bath and Bangor.

The iron shipbuilders, Messrs. Hodgson and co. of Liverpool, are building an iron ship of 1200 tons burden, the first of a line of steamers between New York and Liverpool.

The eastern mail will hereafter be conveyed to Cincinnati by railroad from Xenia.

TRAVELLERS' RAILROAD AND STEAM NAVIGATION GUIDE, ON THE CONTINENT.

List of Railroads Now Open on the Continent, and the Fares.

The Fares are in the Coins of each Country, and reduced into English Currency: th. thalers and silbgros; g. guilders, kreutzers and cents; fr. francs and centimes.

FROM	MILES	DESTINATION.	FIRST CLASS.			SECOND CLASS.		
				s.	D.		s.	D.
Aix-la-Chapelle	43	Cologne .....th.	2 ..	6	0	1 15	4	6
Amsterdam....	25	Utrecht.....g.	1 80	3	0	1 40	2	4
Amsterdam....	..	Arnhem.....	.. ..	....		.. ..	....	
Antwerp	28	Brussels .....fr.	3 25	2	7	2 50	2	0
Antwerp	150	Cologne .....fr.	21 ..	16	10	16 ..	12	10
Antwerp	96	Lille	.. ..	....		.. ..	....	
Antwerp	107	Aix-la-Chapelle.fr.	13 50	10	10	10 50	8	5
Augsburg	39	Munich .....g.	3 ..	6	0	2 12	4	5
Basel	86	Strasburg.....fr.	13 95	11	2	10 60	8	6
Berlin	200	Dresden	.. ..	....		.. ..	....	
Berlin	53	Frankfort on O.th.	2 10	7	0	1 15	4	6
Berlin	140	Leipzig.....th.	5 15	16	6	3 20	11	0
Berlin	128	Magdeburg ....th.	4 20	14	0	3 5	9	6
Berlin	18	Potsdam .....th.	.. 20	2	0	.. 15	1	6
Berlin	90	Stettin	.. ..	....		.. ..	....	
Bonn.....	16	Cologne .....th.	.. 15	1	6	.. 10	1	0
Breslau	53	Oppeln.....th.	2 16	7	8	1 18	4	10
Brunswick	44	Hanover .....th.	.. 20	2	0	.. 18	1	10
Brussels	142	Cologne .....fr.	20 50	16	5	15 50	12	5
Brussels	59	Valenciennes ...fr.	6 ..	4	10	4 75	3	10
Budweis.....	64	Lintz .....g.	3 ..	5	0	2 ..	3	4
Carlsruhe	21	Baden .....g.	1 30	2	6	1 ..	1	8
Carlsruhe	48	Offenbourg .....g.	3 18	5	6	2 12	3	8
Dresden.....	60	Leipzig.....th.	2 8	6	10	1 8	3	10
Dresden.....	134	Magdeburg.....	.. ..	....		.. ..	....	
Dusseldorf.....	18	Elberfeld.....th.	.. 25	2	6	.. 18	1	10
Frankfort O.M.	21	Mainz .....g.	2 6	3	6	1 27	2	5
Frankfort O.M.	26	Wiesbaden.....g.	2 42	4	6	1 48	3	0
Hague.....	47	Amsterdam .....g.	3 65	6	1	2 45	4	1
Hiedelberg	14	Mannheim .....g.	.. 51	1	5	.. 30	0	10
Leipzig.....	33	Altenburg .....th.	1 12	4	3	.. 26	2	8
Mannheim.....	73	Baden .....g.	5 6	8	7	3 30	5	10
Mannheim.....	52	Carlsruhe .....g.	3 18	5	6	2 12	3	8
Mannheim.....	93	Kehl .....g.	6 45	11	3	4 30	7	6
Mannheim.....	100	Offenbourg .....g.	6 33	10	11	4 24	7	4
Ostend.....	92	Antwerp .....fr.	9 25	7	5	7 ..	5	7
Ostend.....	89	Brussels .....fr.	9 25	7	5	7 ..	5	7
Ostend.....	169	Aix-la-Chapelle.fr.	19 50	15	7	15 25	12	2
Ostend.....	212	Cologne .....fr.	27 ..	21	7	20 75	16	7
Paris	18	Corbeil .....fr.	3 ..	2	5	2 40	1	11
Paris	75	Orleans .....fr.	15 ..	12	0	12 60	10	1
Paris	84	Rouen .....fr.	16 ..	12	10	13 ..	10	6
Paris	5	St. Cloud.....fr.	.. 80	0	8	.. 60	0	6
Paris	12	St. Germain....fr.	2 ..	1	7	1 50	1	3
Paris	12	Versailles .....fr.	2 ..	1	7	1 50	1	3
Rouen	84	Paris .....fr.	16 ..	12	10	13 ..	10	6
Vienna	40	Glognitz.....g.	3 29	6	8	2 30	5	0
Vienna	120	Gratz	.. ..	....		.. ..	....	
Vienna	132	Ollmutz .....g.	11 12	23	5	7 ..	14	0

An Alphabetical list of the Distances, in English miles, of the Principal Towns from London, to which are added, those between some of the Continental Towns.

Abbeville	190	Frankfort O.M	544	Moscow	1396
Aix-la-Chapelle	330	Frieburg	739	Naples	1450
Amsterdam	248	Gand	177	Neurenburg, from Frankfort O.M	126
Arnhem	270	Geneva	1080	Neurenbg, f. Leipzig	159
Baden-Baden	650	Gratz, fm. Vienna	120	Offenburg	698
Basel	780	Hague	212	Prague, fm. Vienna.	196
Berlin	644	Havre, by Brighton.	137	Prague, fm. Frankfort O.M	290
Berlin fm. Hamburg	175	" by Southampton	198	Prague, fm. Dresden.	94
Bern	830	Heidelberg	589	Paris, by Brighton	241
Bieberich	510	Kehl	684	Paris, by Southamp.	340
Bonn	420	Leghorn	1240	Rome	1380
Bordeaux, fm. Paris.	346	Leipzig, fm. Frankfort O.M	210	Rouen, by Southamp.	256
Breslau, fm. Berlin	202	Liege	300	Stuttgardt	678
Breslau, fm. Dresden	154	Lyons, fm. Paris	290	Schaffhausen	790
Brussels	250	Mainz	517	St.Petersbg, f. Berlin.	1060
Carlsrhue	625	Mannheim	571	Strasbourg, fm. Paris	285
Caub	485	Milan	942	Trieste, fm. Venice	319
Coblenz	458	Milan, fm. Venice	200	Utretcht	230
Cologne	400	Magdebrg f. Hambg.	157	Vienna, from Frankfort O.m	437
Constance	820	Magdeburg f. Leipzg.	74	Vienna fm. Trieste	319
Dijon, fm. Paris	318	Magdebg. f. Dresden.	134	Venice, fm. Milan	200
Dresden, fm. Prague.	94	Marseilles, fm. Paris	500	Wiesbaden	520
Dusseldorf	368	Munich, fm. Frankfort, O.M	214	Zurich	830
Elberfeld	388	Munich, fm. Vienna.	276		
Emmerich	300				
Florence	1160				

The direct Fares from London are at the following reduced rates.

From LONDON. To the following places.	Via ROTTERDAM. Out, or Single Journey. Chief cabin	Via ROTTERDAM. Out, or Single Journey. Fore cabin	Via ANTWERP & from COLOGNE. Out, or Single Journey, Exclusive of Railroad Fares. Chief cabin	Via ANTWERP & from COLOGNE. Out, or Single Journey, Exclusive of Railroad Fares. Fore cabin	Via OSTEND and from COLOGNE. Out, or Single Journey, Exclusive of Railroad Fares. Chief cabin	Via OSTEND and from COLOGNE. Out, or Single Journey, Exclusive of Railroad Fares. Fore cabin
	£ s. D.	£ s. D.	£ s. D.	£ s. D.	£ s. D.	£ s. D.
Dusseldorf	2 16 6	1 18 11	.....	.....	.....	.....
Cologne...	2 18 6	1 19 10	.....	.....	.....	.....
Bonn.....	2 19 9	2 0 6	2 3 3	1 13 3	1 11 5	1 5 8
Neuweid.	3 3 11	2 2 4	2 8 1	1 15 2	1 16 2	1 7 6
Coblence.	3 4 11	2 2 10	2 9 0	1 15 6	1 17 0	1 8 0
Bingen...	3 10 1	2 5 2	2 13 9	1 17 9	2 1 9	1 10 3
Bieberich.	3 11 1	2 5 9	2 15 3	1 18 5	2 3 2	1 10 11
Wiesbaden	3 11 9	2 6 4	2 16 0	1 19 0	2 3 9	1 11 6
Mayence.	3 11 4	2 5 10	2 15 5	1 18 6	2 3 5	1 11 0
Mannheim	3 15 6	2 8 8	2 19 6	2 1 4	2 7 6	1 13 10

Children under 10 years of age, half price; for dogs, half the price of fore cabin is charged; on carriages, and horses booked in London direct for the Rhine, a considerable reduction is also made.

Agents--General Steam Navigation Company.

Rotterdam, W. Smith, and Mr. P. A. Van Es.	*Brussels*, W. Middleton.
Cologne, J. Simonis.	*Paris*, F. Spiers.
Aix-la-Chapelle, J. A. Mayer.	*Havre*, P. Albrecht.
Spa, Dommartin.	*Rouen*, Company's Office.
Antwerp, C. Brequigny.	*Dieppe*, D. L. Chapman.
Ostend, St. Amour.	*Boulogne*, W. Hughes, Dellatre.
Gand, I. Van Aken.	*Calais*, A. Spiers.
	Hamburg, G. Delaval.

BOSTON COURIER, DAILY, SEMI- Weekly and Weekly.

The *Daily* edition of the Courier, presents to merchants and others, an extensive medium of advertising. The circulation of the *Semi-Weekly* Courier (pubiished on Mondays and Thursdays) is believed to be more extensive than that of any other similar Boston Newspaper. This publication embraces all the reading matter of the Daily, the Foreign and Domestic Markets, Review of the Boston Market, Prices current, and Ship News, prepared with great accuracy. The *Weekly* Courier contains as much of the matter of the daily as can be crowded into a sheet of the same size, without ship news, prices current or advertisements.

Our extions to obtain and publish authentic information on all topics proper for the columns of a newspaper,—the state of trade, the prices of merchandize, the current news of the day, and the political movements in the various sections of the country—will not be abated. The marine department of the Courier has been inferior to none in copiousness or accuracy of detail, and it will be our endeavor to maintain its reputation in this respect.

TERMS OF SUBSCRIPTION.

For the Daily Courier, for one year, in advdnce $8,00
For the Semi-Weekly Courier, for one year.. 4,00
For the Weekly Courier, for one year..... 2,00

JOSEPH T. BUCKINGHAM.
EBEN B. FOSTER.

SPRING STEEL FOR LOCOMOTIVES, Tenders and Cars. The Subscriber is engagep in manufacturing Spring Steel from 1¼ to 6 inches in width, and of any thickness required: large quantities are yearly furnished for railroad purposes, and wherever used, its quality has been approved of. The establishment being large, can execute orders with great promptitude, at reasonable prices, and the quality warranted. Address

JOAN F. WINSLOW, *Agent*,
ja3 Albany Iron and Nail Works, Troy, N. Y.

TO IRON MANUFACTURERS. THE SUBscribers, as Agents of Mr. George Crane, of Wales, having obtained a patent in the United States for his process of smelting Iron Ore with Anthracite coal, and holding an assignment of the patent obtained by the late Rev. F. W. Geissenhainer, are prepared to grant licenses for the manufacture of Iron according to Mr. Crane's principle.

A. & G. RALSTON & CO.,
ja45 No. 4 Sout Fronth st., Philadelphia, Pa.

MACHINE WORKS OF ROGERS, KETCH- um & Grosvenor, Patterson, N. J. The undersigned receive orders for the following articles, manufactured by them of the most superior description in every particular. Their works beingextensive and the number of hands employed beinglarge, they are enabled to execute both large and small orders with promptness and despatch.

Railroad Work.

Locomotive steam engines and tenders; Driving and other locomotive wheels, axles, springs & flange tires; car wheels of cast iron, from a variety of patterns, and chills; car wheels of cast iron with wrought tires; axles of best American refined iron; springs; boxes and bolts for cars.

Cotton, Wool and Flax Machinery

of all descriptions and of the most improved patterns, style and workmanship.

Mill gearing and Millwright work generally; hydraulic and other presses; press screws; callenders; lathes and tools of all kinds; iron and brass castings of all descriptions.

ROGERS, KETCHUM & GROSVENOR,
a45 Paterson, N. J., or 60 Wall street, N. York.

FOR SALE, AT A SACRIFICE—A LOCOmotive Engine, 4 wheels and Tender. Cylinders 10 in. dia., Stroke 16 in., Cylinders inside of smoke box. Weight of engine, with wood and water, about 9 tons. This engine and tender are new, and of the best materials and workmanship. If required, would be altered to a 6 wheeled engine.

Also, 1 20-horse High Pressure Steam Engine.
2 8-horse " " "
1 Upright Hydraulic Press.

All of which will be sold low, on application to

T. W. & R. C. SMITH.
Founders and Machinists,
May 12tf Alexandria, D. C.

NICOLL'S PATENT SAFETY SWITCH for Railroad Turnouts. This invention, for some time in successful operation on one of the principal railroads in the country, effectually prevents engines and their trains from running off the track at a switch, left wrong by accident or design.

It acts independently of the main track rails, being laid down, or removed, without cutting or displacing them.

It is never touched by passing trains, except when in use, preventing their running off the track. It is simple in its construction and operation, requiring only two Castings and two Rails; the latter, even if much worn or used, not objectionable.

Working Models of the Safety Switch may be seen at Messrs. Davenport and Bridges, Cambridgeport, Mass., and at the office of the Railroad Journal, New York.

Plans, Specifications, and all information obtained on application to the Subscriber, Inventor, and Patentee.

G. A. NICOLLS,
ja45 *Reading, Pa.*

GEORGE VAIL & CO., SPEEDWELL IRON Works, Morristown, Morris Co., N. J.—Manufacturers of Railroad Machinery; Wrought Iron Tires, made from the best iron, either hammered or rolled, from 1¾ in. to 2½ in thick.—bored and turned outside if required. Railroad Companies wishing to order, will please give the exact inside diameter, or circumference, to which they wish the Tires made, and they may rely upon being served according to order, and also punctually, as a large quantity of the straight bar is kept constantly on hand.—Crank Axles, made from the best refined iron; Straight Axles, for Outside Connection Engines; Wro't. Iron Engine and Truck Frames; Railroad Jack Screws; Railroad Pumping and Sawing Machines, to be driven by the Locomotive; Stationary Steam Engines; Wro't. Iron work for Steamboats, and Shafting of any size; Grist Mill, Saw Mill and Paper Mill Machinery; Mill Gearing and Mill Wright work of all kinds; Steam Saw Mills of simple and economical construction, and very effective Iron and Brass Castings of all descripio ns.t

ja451y

TO RAILROAD COMPANIES AND MAN- ufacturers of railroad Machinery. The subscribers have for sale Am. and English bar iron, of all sizes; English blister, cast, shear and spring steel; Juniata rods; car axles, made of double refined iron; sheet and boiler iron, cut to pattern; tiers for locomotive engines, and other railroad carriage wheels, made from common and double refined B. O. iron; the latter a very superior article. The tires are made by Messrs. Baldwin & Whitney, locomotive engine manufacturers of this city. Orders addressed to them, or to us, will be promptly executed.

When the exact diameter of the wheel is stated in the order, a fit to those wheels is guaranteed, saving to the purchaser the expense of turning them out inside.

THOMAS & EDMUND GEORGE,
ja45 N. E. cor. 12th and Market sts., Philad., Pa.

FROM NEW YORK.

New York and Harlem Railroad Company.

Leave City Hall for Yorkville, Harlem and Morrisiania at 5.30, 7, 8, 9, 10, a.m.; 1, 2, 3, 3.30, 4, 5, 5.30, 6, p.m. For Fordham and Williams' Bridge at 5.30, 7, 10, a.m.; 2, 3.30, 5, 6, p.m. For White Plains at 7 and 10 a.m.; 2 and 5 p.m. Leave Morrisiania and Harlem for City Hall at 6.20, 8, 9, 10, 11, a.m.; 2, 3, 4, 2, 5.20, 6, 6.30, 7.45 p.m. Williams' Bridge for City Hall at 7, 7.40, 10.40 a.m.; 2.40, 5, 5.40, 7.20 p.m. White Plains for City Hall at 7.10 and 40.10 a.m.; 2.10 and 5.10 p.m. 31

Evening, or 6 o'clock Line.—Line steamboats for Albany—Daily, Sundays excepted—Through direct at 7 o'clock P.M. from pier between Courtlandt and Liberty streets.—Steamboat Rochester, Capt. R. G. Crittenden, will leave on Monday, Wednesday, and Friday. Steamboat Knickerbocker, Captain A. Houghton, will leave on Tuesday, Thursday, and Saturday. 31

For Albany and Troy, direct, at 6 o'clock, P.M., from the steamboat pier, foot of Courtlandt street. The Empire, Capt. R. B. Macy, Tuesday, Thursday and Saturday. The Columbia, Capt. Wm. H. Peck, Monday, Wednesday, and Friday. 31

PASSENGER LINES, SOUTH AND SOUTHWEST.

New York and Philadelphia Railroad Line—Direct. Leaves New York daily, from the foot of Liberty street. Morning Line, 9 o'clock, A.M. Mail Pilot Line, 4½ o'clock, P.M. Fare in first class cars, $4. Second class cars, $3.

Passengers will procure their tickets at the office foot of Liberty street. Philadelphia Baggage Crates are conveyed from city to city without being opened by the way. Each train is provided with a car, in which are apartments and dressing rooms expressly for the Ladies' use. 31

Camden and Amboy Railroad Line.—For Philadelphia and intermediate places. Leaves Pier No. 2, North River, foot of Battery Place, by Steamboat to South Amboy, daily, Sundays excepted, at 5½ o'clock A.M. Passengers will take the cars at South amboy. Fare to Philadelphia, $3. Forward deck passengers, $2 25. To Freehold and Monmouth, via. stages from Hightstown, $1 50. To Spotswood and West 75 cents. To South Amboy, 25 cents. To Perth Amboy, Tattens, Rossville and Tuffts, 12½ cents.

The steamboat Independence will land at each of the above named places going and returning, leaving Perth Amboy at 5 o'clock P.M. 31

Susquehanna Line of Railroad Cars and Post Coaches.

This line leaves the depot, corner of Broad and Cherry streets, daily, [Sundays excepted] at 8 o'clock, a.m., via Reading and Pottsville railroad, for Sunbury, Danville, Cattawissa, Northumberland, Milton, Muncy, Williamsport, Towanda, Bellefonte, Jersey Shore, Lockhaven, Ralston and Elmira. For seats apply at the stage office, 104 Race street, ur der the White Swan Hotel.

34 S. STILES, Agent.

SUMMER ARRANGEMENT—FARE REDUCED.

By the Great Southern Mail Line, via Washington City, and the only line that now issues through tickets south, to Weldon and Charleston, S. C., whereby the traveller gains 24 hours in advance of those who take the Bay route. This is the only line that carries the great southern mail to Richmond, Petersburgh, Weldon, and Charleston, S. C.

Direct to New Orleans, and at the following reduced rates of fare, viz: Through tickets from Baltimore to Charleston, $21: whereby the traveller saves $4 25. Bear in mind that this is the great *Southern Mail Line*, and the only *one that issues a through ticket South.* Those who patronize it will save their money and time. *Through Tickets* from Baltimore to Charleston $21; Baltimore to Weldon $10; Baltimore to Petersburg $7 50; Baltimore to Richmond $7.

Fast Mail Line.—Leave New York at 9 a.m. and arrive in Philadelphia at 3½ p.m.; arrive in Baltimore at 11 p.m.; arrive in Washington at 3 a.m.; arrive in Fredericksburg at 9 a.m.; arrive in Richmond, Va., at 12½ to 1 p.m.; arrive in Petersburgh, Va., at 3 p.m.; arrive in Weldon, N. C., at 10 p.m.; arrive in Wilmington, N. C., at 12 m.; arrive in Charleston, S. C.. at 6 a.m.

Passengers by the above line will arrive at Richmond by 11½ o'clock p.m. and Petersburg, Va. by 2½ o'clock p.m., through to the former city in *twelve hours*, and to the latter in fourteen and a half hours, (*and in eight hours less time than by the Bay route,*) and to Charleston, S. C., in fifty-one to fifty-two hours after leaving Baltimore, and do not incur the risk of any detention at intermediate points as those do who take the Bay route.

Way Mail Schedule.—Leave New York at 5 o'clock p.m. and arrive in Philadelphia at 10 p. m.; arrive in Baltimore at 2½ p.m.; arrive in Washington at 7 p.m. *From Philadelphia by steamboat.*—Leave Philadelphia at 6 a.m. and arrive in Baltimore at 1 p.m.; leave Baltimore at 5 p.m. and arrive in Washington at 7 p.m.

For further information and *through tickets* apply at the Southern office, adjoining the Washington railroad ticket office, Pratt street, Baltimore.

31 STOCKTON & FALLS.

LONG ISLAND RAILROAD.—EVENING Line for Newport and Providence. Fare 50 cents.

Every Tuesday, Thursday and Saturday, from the foot of Whitehall street, at 4½ o'clock and from Brooklyn depot at 5, p.m.

On the arrival of the train at Greenport, passengers will proceed immediately in the steamer "New Haven," direct. 2t 39

BOSTON AND PROVIDENCE RAILroad. Dedham Branch Railroad. Stoughton Branch Railroad.

Fall arrangement, to commence Monday, September 29, 1845.

Steamboat train for New York via Stonington, leaves Boston at 4½ p.m.

Accommodation trains, leave Boston at 8 a.m. and 3½ p.m. Leave Providence at 8 a.m. and 3½ p.m.

Fare in first class cars, $1 25
" second " 85

Dedham trains, leave Boston at 9 a.m. 3 p.m., and 6 p.m. Leave Dedham at 7½ a.m., 10½ a.m. and 4½ p.m.

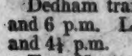
Fare 25 cents.

Stoughton trains, leave Boston at 12 m. and 4 p.m. Leave Stoughton at 8 a.m. and 2½ p.m.

Fare 50 cents.

W. RAYMOND LEE, *Sup't.*
Sept. 15, 1845. 31 1y

NEW YORK AND ERIE RAILROAD LINE. For Middletown, Goshen, and intermediate places. Two daily lines each way, as follows:



For passengers, the new, and commodious steamboat St. Nicholas, Capt. Alex. H. Shultz, will leave the foot of Duane street daily, [Sundays excepted,] at 7½ o'clock, A.M., and 5 o'clock, P.M., through in five hours. Returning, the cars will leave Middletown at 6, A.M., and 4½, P.M. For further particulars inquire of J. Van Rensselaer, Agent, corner of Duane and West streets,

H. C. SEYMOUR, Superintendant.

Stages run from Middletown daily, in connection with the afternoon line, to Bloomingburg, Wurtsboro, Monticello, Mt. Pleasant, Binghampton, Owego, Port Jervis, Honesdale Carbondale, etc.

On Monday, Wednesday, and Friday, to Dundaff, Montrose, Friendsville, Lenox, Brooklyn, etc., etc. 31 1y

BALTIMORE AND SUSQUEHANNA Railroad. The Passenger train runs daily except Sunday, as follows:

Leaves Baltimore at 9 a.m., and arrives at 6½ p.m. Arrives at York at 12½ p.m., and leaves for Columbia at 1½ p.m. Leaves Columbia at 2 p.m., and leaves York for Baltimore at 3 p.m. Fare to York $2. Wrightsville $2 50, and Columbia $2 62½. The train connects at York with stages for Harrisburg, Gettysburg, Chambersburg, Pittsburg and York Springs.

Fare to Pittsburg. The company is authorized by the proprietors of Passenger lines on the Pennsylvania improvements, to receive the fare for the whole distance from Baltimore to Pittsburg. Baltimore to Pittsburg.—Fare through, $9 and $10.

Afternoon train. This train leaves the ticket office daily, Sundays excepted, at 3½ p.m. for Cockeysville, Parkton, Green Springs, Owings' Mills, etc.

Returning, leaves Parkton at 6 and Cockeysville and Owings' Mills at 7, arriving in Baltimore at 9 o'clock a.m.

Tickets for the round trip to and from any point can be procured from the agents at the ticket offices or from the conductors in the cars. The fare when tickets are thus procured, will be 25 per cent. less, and the tickets will be good for the same and following day in any passenger train.

D. C. H. BORDLEY, *Sup't.*
31 1y Ticket Office, 63 North st.

DAVIS, BROOKS & Co., 30 WALL ST. Have now on hand and for sale,

200 tons 2½ x ½ inch Flat punched Rails, Bars 18 feet each.

100 tons Heavy Edge Rails, 90 tons per mile.

30 tons 2½ x ½ inch Flat Rails.

ALSO—A STEAM PILE DRIVER, built by "Dunham & Co." which has never been used, and cost originally $5000. s20 2m

BALTIMORE AND OHIO RAILROAD. MAIN STEM. The Train carrying the Great Western Mail leaves Baltimore every morning at 7½ and

Cumberland at 8 o'clock, passing Ellicott's Mills, Frederick, Harpers Ferry, Martinsburgh and Hancock, connecting daily each way with—the Washington Trains at the Relay House seven miles from Baltimore, with the Winchester Trains at Harpers Ferry—with the various railroad and steamboat lines between Baltimore and Philadelphia and with the lines of Post Coaches between Cumberland and Wheeling and the fine Steamboats on the Monongahela Slack Water between Brownsville and Pittsburgh. Time of arrival at both Cumberland and Baltimore 5½ P. M. Fare between those points $7, and 4 cents per mile for less distances. Fare through to Wheeling $11 and time about 36 hours, to Pittsburgh $10, and time about 32 hours. Through tickets from Philadelphia to Wheeling $13, to Pittsburgh $12. Extra train daily except Sundays from Baltimore to Frederick at 4 P. M., and from Frederick to Baltimore at 8 A. M.

WASHINGTON BRANCH.

Daily trains at 9 A. M. and 5 P. M. and 12 at night from Baltimore and at 6 A. M. and 5½ P. M. from Washington, connecting daily with the lines North, South and West, at Baltimore, Washington and the Relay house. Fare $1 60 through between Baltimore and Washington, in either direction, 4 cents per mile for intermediate distances. s13 1y

CENTRAL RAILROAD—FROM SAVANnah to Macon. Distance 190 miles.

This Road is open for the transportation of Passengers and

Freight. Rates of Passage, $8 00. Freight—

On weight goods generally...	50 cts. per hundred.
On measurement goods	13 cts. per cubic ft.
On brls. wet (except molasses and oil).....	$1 50 per barrel.
On brls. dry (except lime)...	80 cts. per barrel.
On iron in pigs or bars, castings for mills, and unboxed machinery.....	40 cts. per hundred.
On hhds. and pipes of liquor, not over 120 gallons.....	$5 00 per hhd.
On molasses and oil.....	$6 00 per hhd.

Goods addressed to F. WINTER, Agent, forwarded free of commission. THOMAS PURSE,
40 Gen'l. Sup't. Transportation.

LEXINGTON AND OHIO RAILROAD. Trains leave Lexington for Frankfort daily, at 5 o'clock a.m., and 2 p.m.

Trains leave Frankfort for Lexington daily, at 8 o'clock a.m. and 2 p.m. Distance, 28 miles. Fare $1·25.

On Sunday but one train, 5 o'clock a.m. from Lexington, and 2 o'clock p.m. from Frankfort.

The winter arrangement (after 15th September to 15th March) is 6 o'clock a.m. from Lexington, and 9 a.m. from Frankfort, other hours as above.
35 1y

KEARNEY FIRE BRICK. F. W. BRINLEY, Manufacturer, Perth Amboy, N. J. Guaranteed equal to any, either domestic or foreign. Any shape or size made to order. Terms, 4 mos. from delivery of brick on board. Refer to

James P. Allaire,
Peter Cooper, } New York.
Murdock, Leavirt & Co.
J. Triplett & Son, Richmond, Va.
J. R. Anderson, Tredegar Iron Works, Richmond, Va.
J. Patton, Jr. & Colwell & Co. } Philadelphia, Pa.
J. M. L. & W. H. Scovill, Waterbury, Con.
N. E. Screw Co. & Eagle Screw Co. } Provicence, R. I.
William Parker, Supt. Bost. and Worc. R. R.
New Jersey Malleable Iron Co., Newark, N. J.
Gardiner, Harrison & Co. Newark, N. J.

25,000 to 30,000 made weekly. 35 1y

RAILROAD IRON AND FIXTURES. The Subscribers are ready to execute orders for the above, or to contract therefor, at a fixed price, delivered in the United States.

DAVIS, BROOKS & CO.,
ja45 **30** Wall st., N. York.

OFFICE OF THE NEW YORK AND Erie Railroad Company. *No.* **50** *Wall st. New York.* September 13, 1845.

Notice is hereby given to the holders of stock of the New York and Erie Railroad company, that by the terms of the 8th section of the Act of the 14th May, 1845, it is provided that, if within 6 years from the passage of the law the company shall complete a single track from the Hudson river to lake Erie and a branch to Newburgh, in Orange county, then "the said company shall be released from all liabil-"ity to pay to the state any demand which the state "may have against them, with this exception only, "that in case any holder or holders of the capital "stock of said company heretofore issued and certi-"fied, or purporting to be paid in full, shall not with-"in six months from the passage of this act, surren-"der to the company their stock certificates, and re-"ceive or offer to receive therefor, for every two "shares of stock heretofore issued, one share of stock "to be hereafter issued, then all such stock heretofore "issued, and not so surrendered, shall not be subject "to the provisions of this law; but the state shall re-"tain the right to claim upon such outstanding stock, "and the said company shall pay into the treasury of "the state, upon the order of the comptroller, any and "all dividends upon such outstanding stock, and the "comptroller shall apply the same to the credit of "said company, until the state shall receive in such "dividends, so much of their said debt of three mill-"ions of dollars and the interest thereon, as would be "the proportion of such outstanding stockholders to "pay, provided the whole debt of three millions of "dollars and interest thereon were collected ratably "from all the stock of said company now outstand-"ing."

By section 9th, of the same law, it is provided that, "it shall be the duty of the president and sec-"retary of said company, within thirty days after the "expiration of the six months mentioned in the last "preceding section, to file with the comptroller of "the state, a statement of all stocks that shall not "have been exchanged in pursuance of the provis-"ions of the last preceding section; and whenever "any dividend upon the stock of the said company "shall be made, it shall be the duty of the board of "directors to notify the comptroller of such dividend, "and upon payment of the dividend aforesaid into "the treasury, the comptroller shall furnish to said "company a receipt for the portion of such dividend "belonging to any stock not surrendered and ex-"changed in pursuance of the last preceding section "of this act, and said company shall surrender to "the holders of such stock the receipt of said comp-"troller in lieu of said dividends."

It will be seen that on or befere the 14th of November next, each and every holder of the stock of the company must decide whether he will avail himself of the provisions of this law by surrendering his stock and receiving one share for every two shares thus surrendered. With reference to holders who neglect to avail themselves of the provisions of the act, it is made the duty of the company, within thirty days from the 14th of November, "to file "with the comptroller a statement of all stocks that "shall not have been exchanged" agreeably to the provisions of this act, the dividends on which must be paid into the state treasury, rendering that class of stock practically of no value to the holder. The board of directors consider it their duty to protect the interests of the stockholders by giving all possible publicity to that portion of the law relating to the outstanding stock, that all may have an opportunity for an early compliance with the provisions of the act. By order of the board of directors.
39 8t T. S. BROWN, Acting secretary.

OFFICE OF THE NEW YORK AND Erie Railroad Company. *No.* **50** *Wall st. New York* 4th October, 1845.

Notice is hereby given that the sum of three millions of dollars, required by the law of May 14th, 1845, has been subscribed to the capital stock of this company, and that the books have been closed. The subscribers are required to make a payment of five dollars on each share, at the office of the company, on or before Thursday, the 16th of October inst.

By order of the board of Directors.
41 2t T. S. BROWN, Acting Secretary.